

Service Manual

ORDER NO.
ARP3313

PLASMA DISPLAY SYSTEM

PRO-1130HD PRO-930HD

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PRO-1130HD	—	AC120V	
PRO-930HD	—	AC120V	

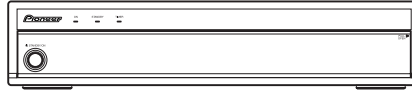
● PRO-1130HD is combination of the following components.

Component	System	Service Manual	Remarks
PLASMA DISPLAY SYSTEM	PRO-1130HD	ARP3313	This manual.
PLASMA DISPLAY	PRO-506PU/KUC	ARP3290 (ARP3267)	
MEDIA RECEIVER	PRO-R06U/KUCXC	ARP3279, ARP3280	
SPEAKER SYSTEM	PDP-S36/XIN/UC	RRV3220	

● PRO-930HD is combination of the following components.

Component	System	Service Manual	Remarks
PLASMA DISPLAY SYSTEM	PRO-930HD	ARP3313	This manual.
PLASMA DISPLAY	PRO-436PU/KUC	ARP3291 (ARP327)	
MEDIA RECEIVER	PRO-R06U/KUCXC	ARP3279, ARP3280	
SPEAKER SYSTEM	PDP-S35/XTW/UC	RRV3233	

Service Manual



PDP-R06U

ORDER NO.
ARP3280

MEDIA RECEIVER

PDP-R06U PRO-R06U

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R06U	KUCXJ	AC 120V	
PRO-R06U	KUCXJ	AC 120V	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-R06U, PRO-R06U	ARP3279	EXPLODED VIEWS, BLOCK DIAGRAM etc.



For details, refer to "Important Check Points for good servicing".

1 2 3 4

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

C

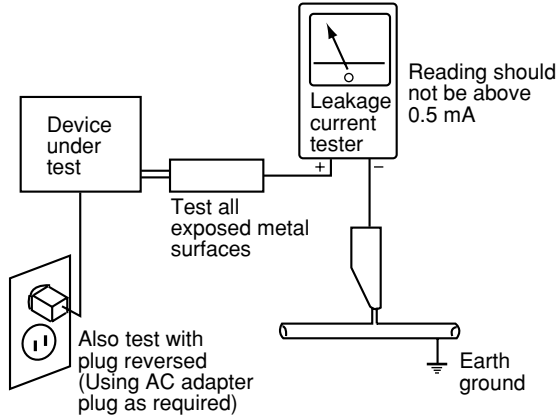
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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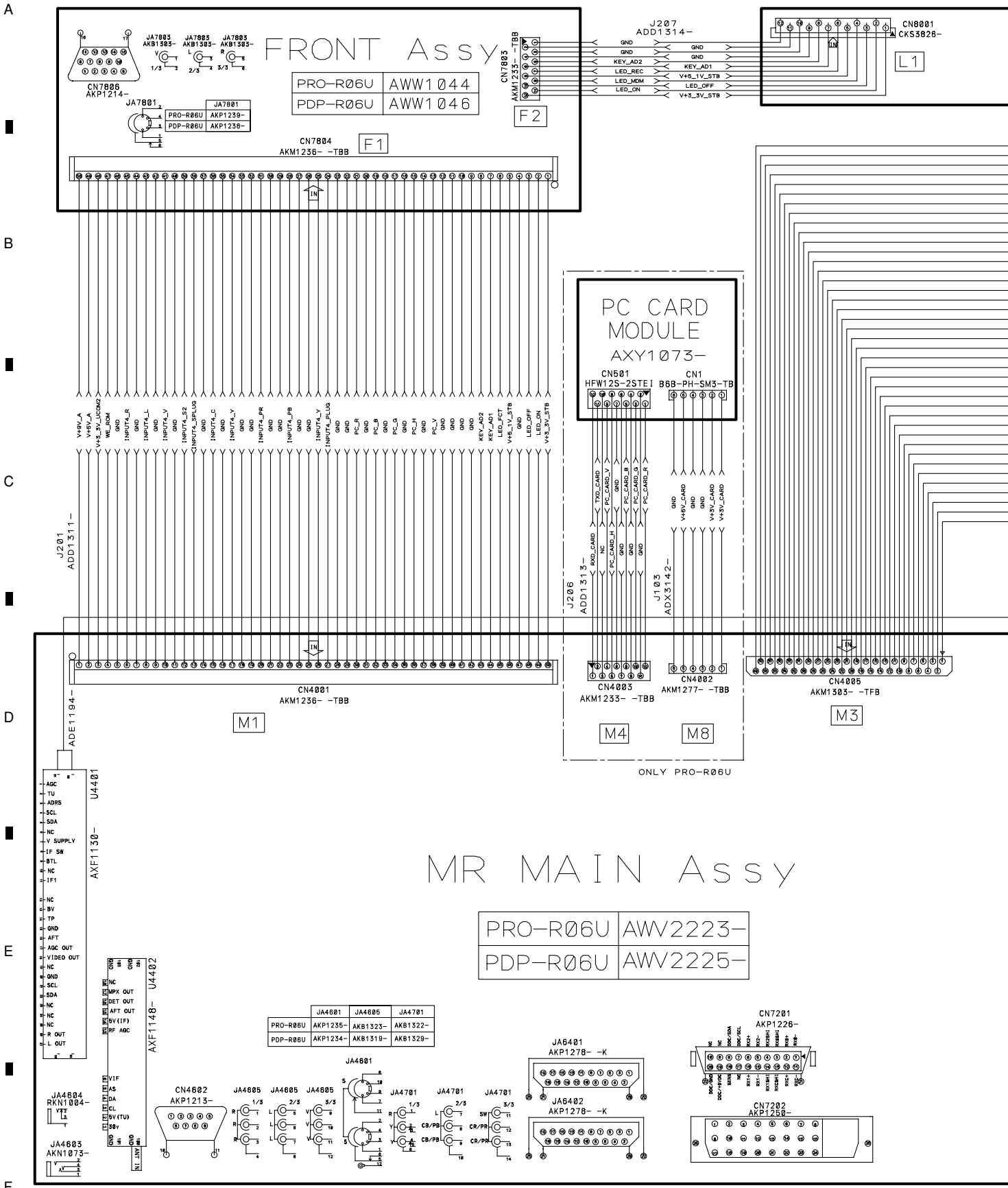
PDP-R06U

5

1234


3. SCHEMATIC DIAGRAM

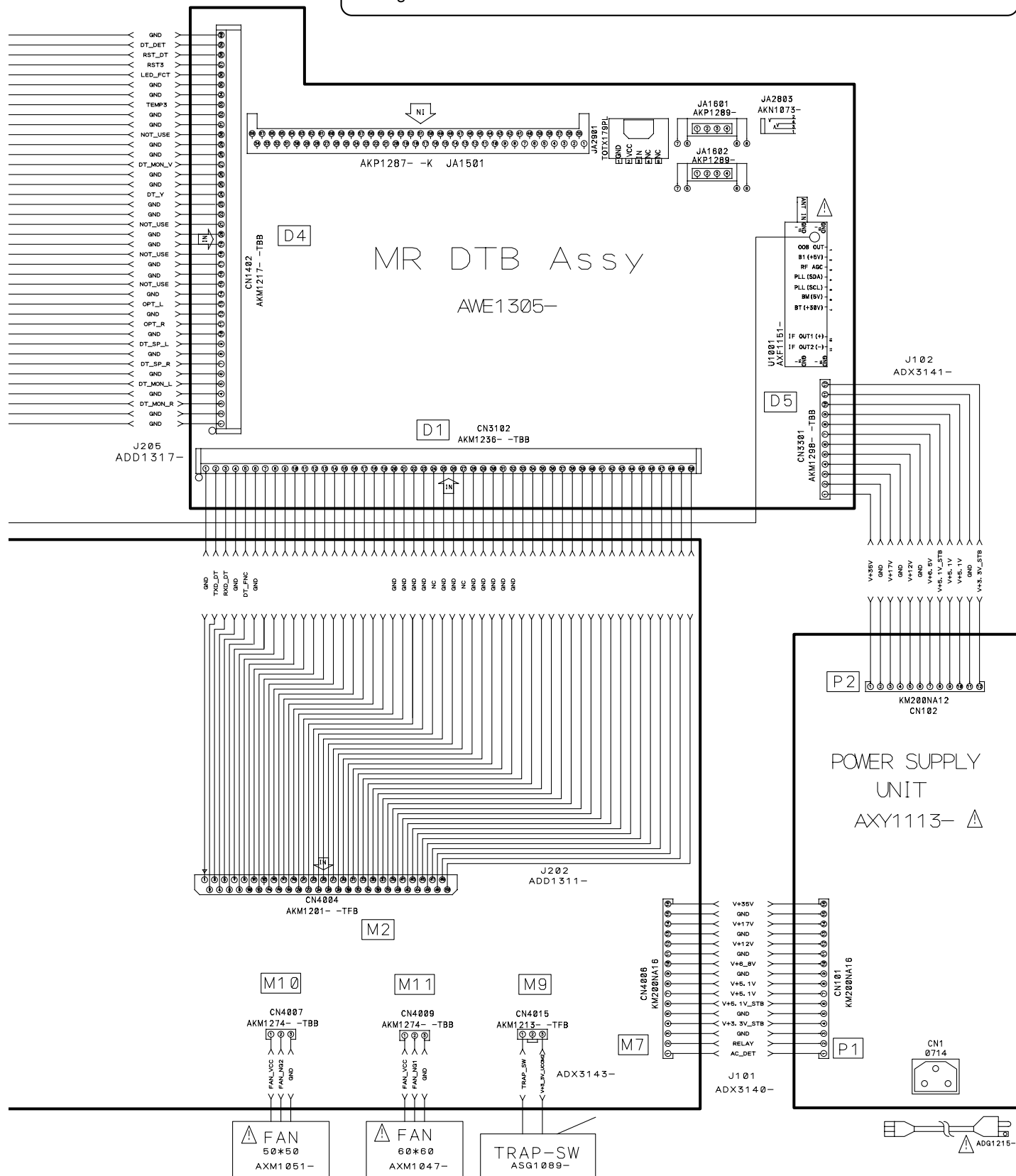
3.1 OVERALL WIRING DIAGRAM



LED Assy

AWW1045

- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.



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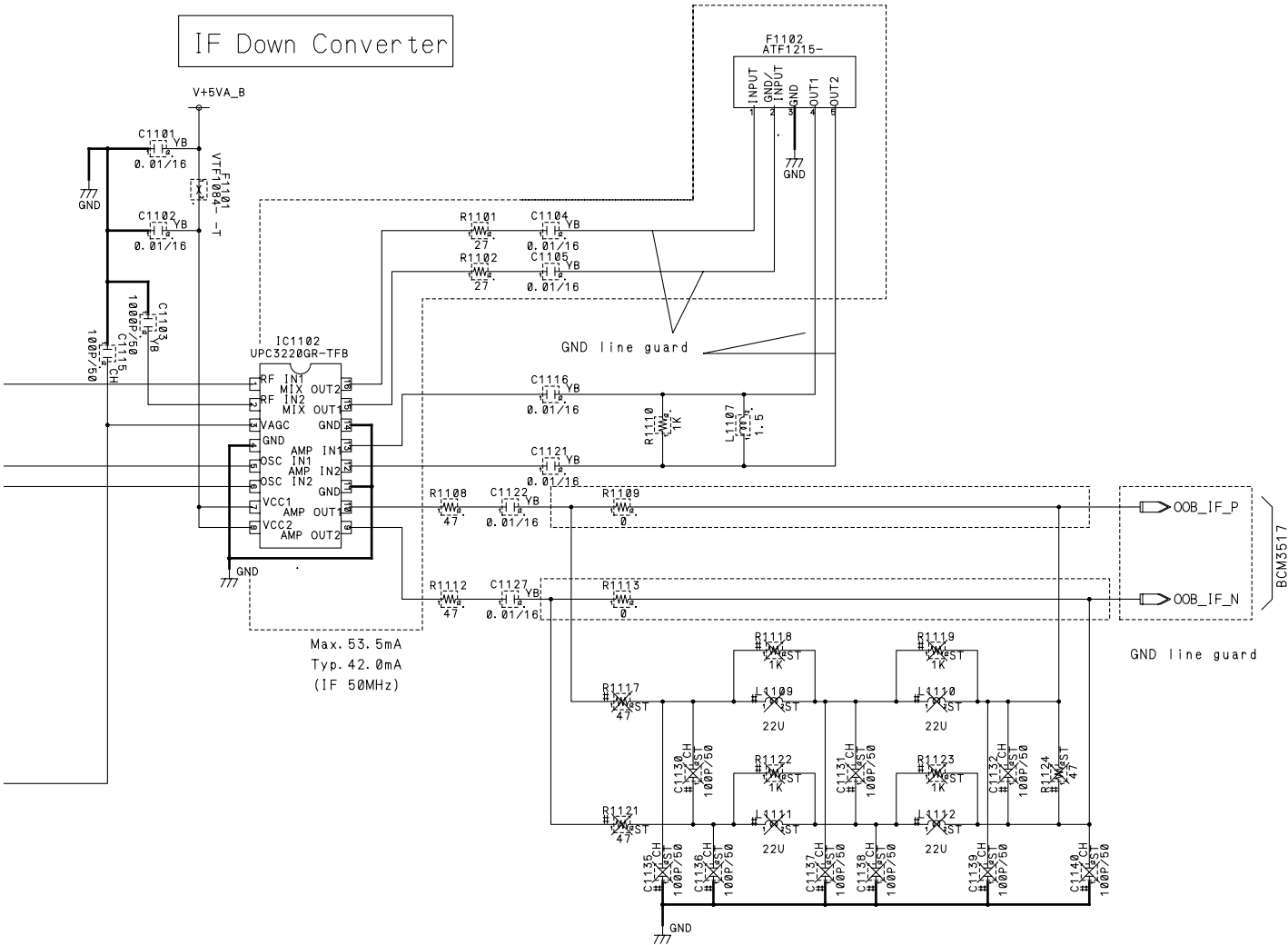
F

ITEM	USED	VACANT
C	1101-1134	1113, 1114, 1120, 1125, 1126 1130-1132
F	1101-1102	
IC	1102	
L	1102-1108	
Q	----	
R	1101-1132	1104, 1106, 1107, 1111, 1131 1117-1124, 1126-1128, 1130
-	----	

X: Don't mount

QPSK Rx

QPSK Rx
SAW Filter

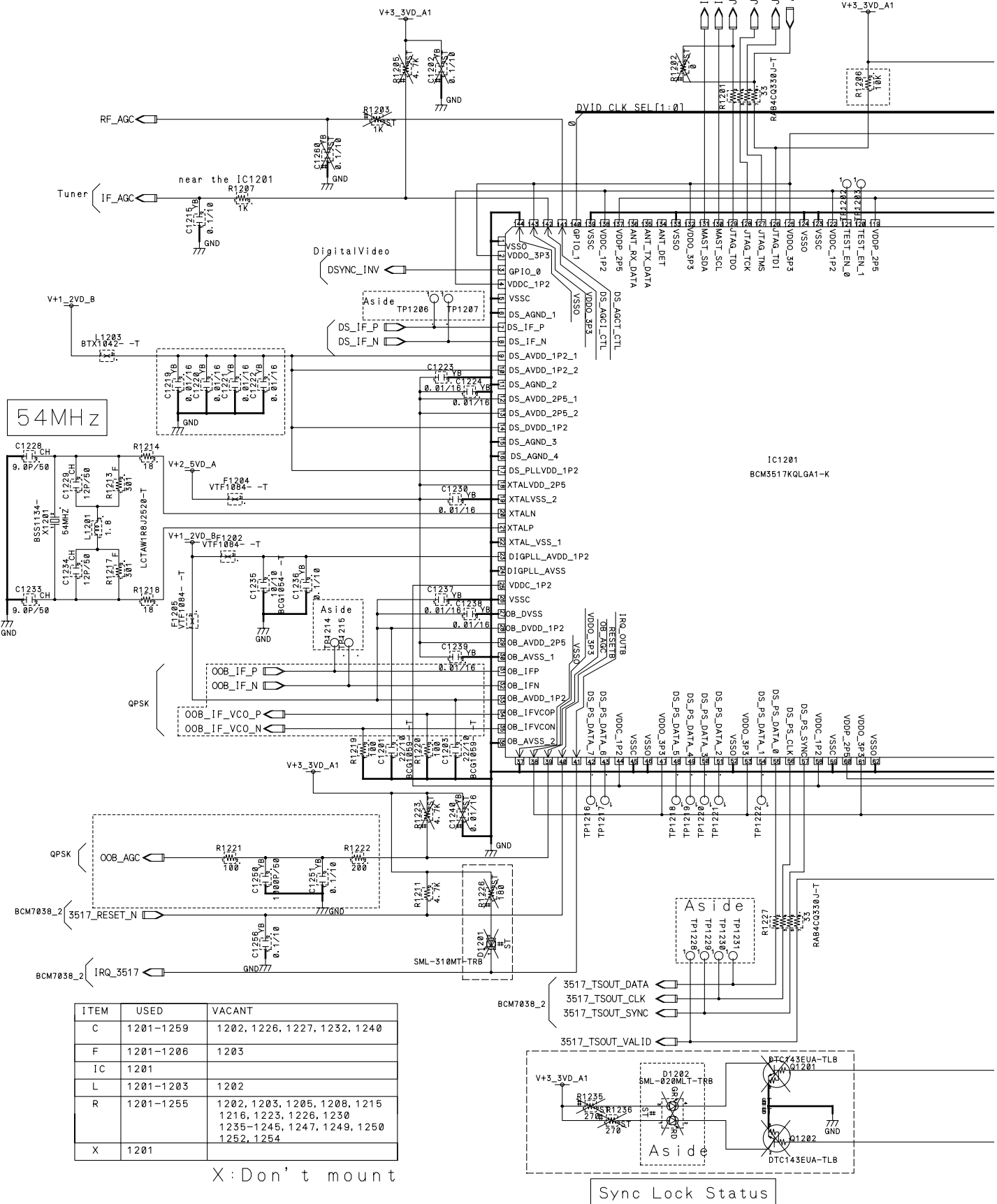


3.4 MR DTB ASSY (3/14)

MR DTB ASSY (3/14)

• FRONT / END IC BLOCK

BCM3517



ITEM	USED	VACANT
C	1201-1259	1202, 1226, 1227, 1232, 1240
F	1201-1206	1203
IC	1201	
L	1201-1203	1202
R	1201-1255	1202, 1203, 1205, 1208, 1215, 1216, 1223, 1226, 1230, 1235-1245, 1247, 1249, 1250, 1252, 1254
X	1201	

X: Don't mount



△

SDRAM for VDEC

A



A



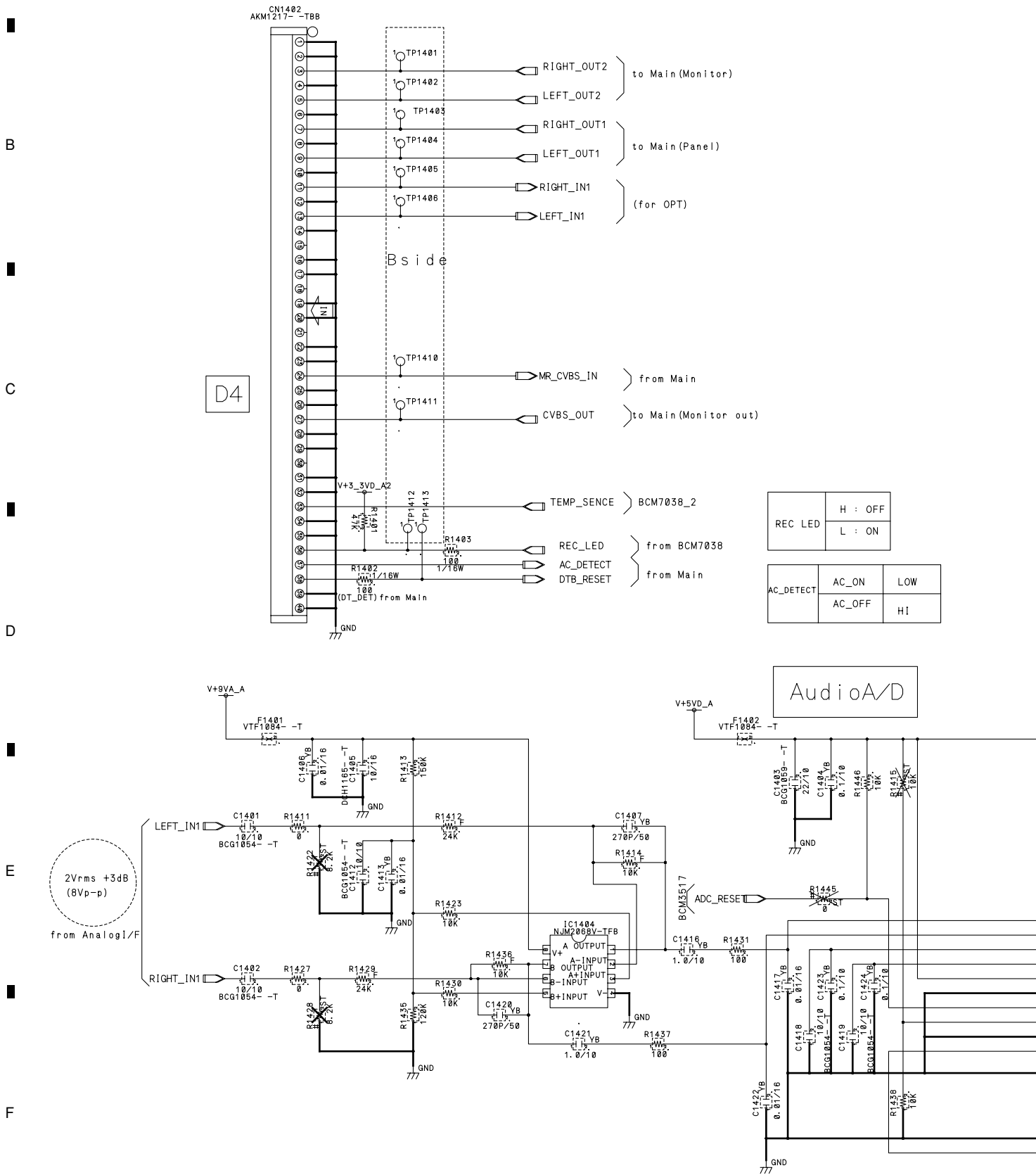
3.6 MR DTB ASSY (5/14)

MR DTB ASSY (5/14)

- A-AD, AV-I/F BLOCK

Analog IF <1>

DTB <--> Main Board



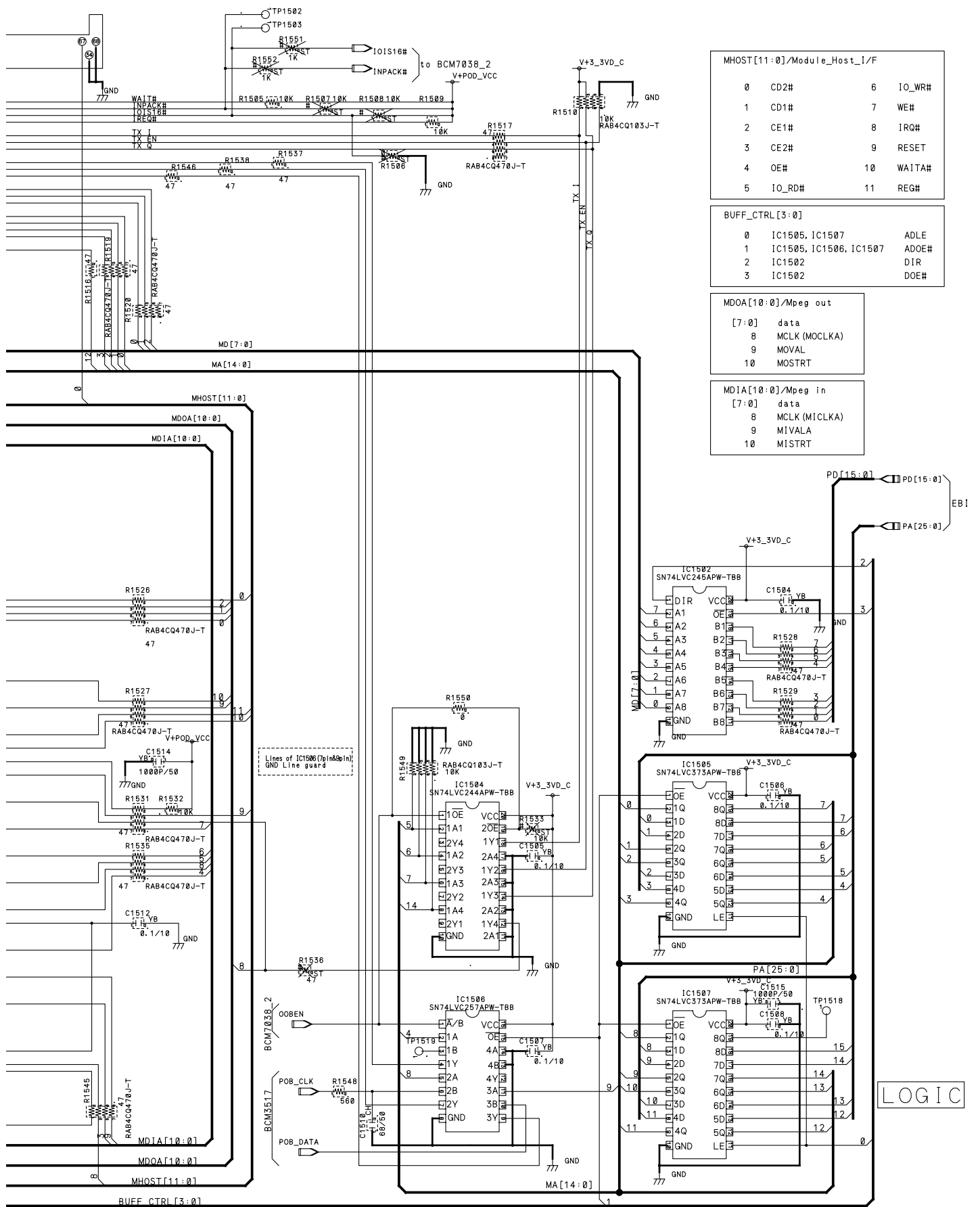
4

A • POD IC BLOCK



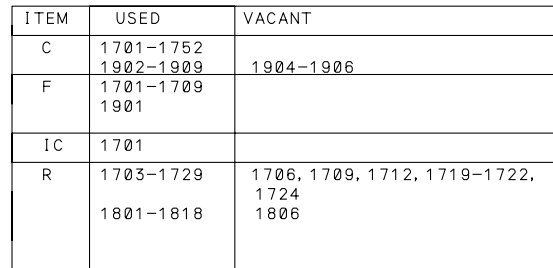
ITEM	USED	VACANT
C	1502-1516	
IC	1502-1507	
JA	1501	
R	1501-1557	1506-1508, 1530, 1533, 1536 1551-1553, 1555

X: Don't mount

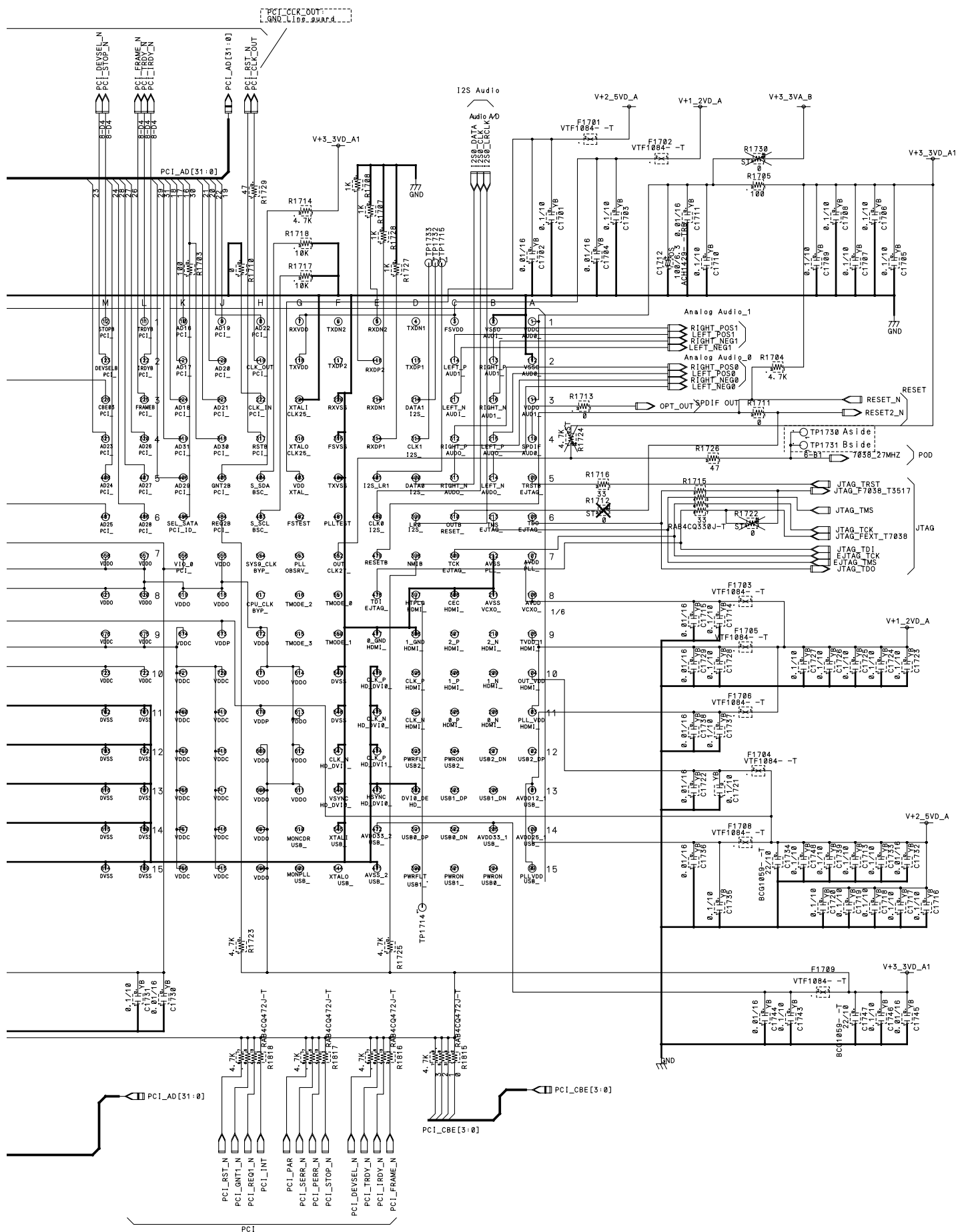


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3.9 MR DTB ASSY (8/14)

MR DTB ASSY (8/14)

•BACK END BLOCK (2/2)

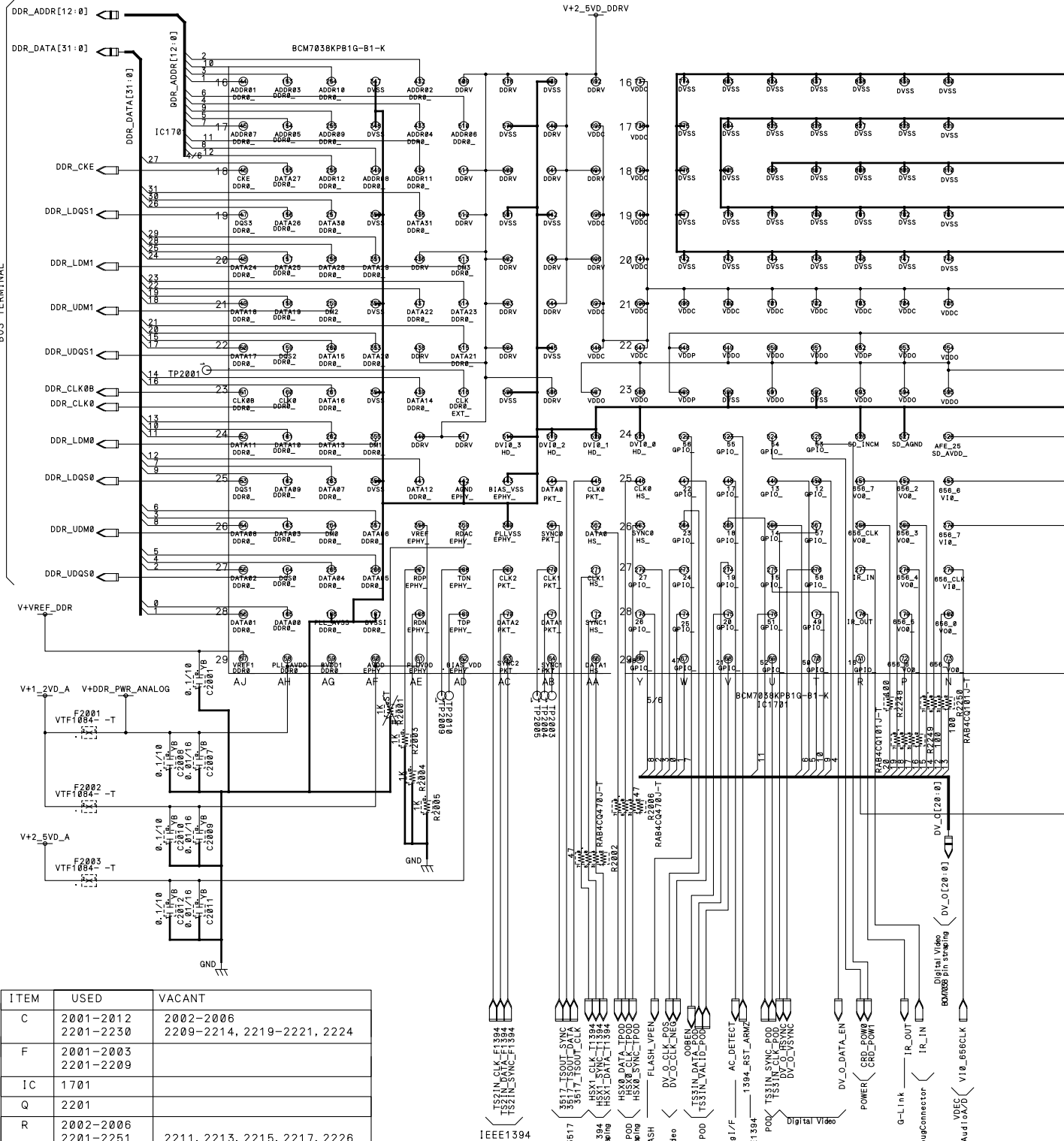
B

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X:Don't mount



△

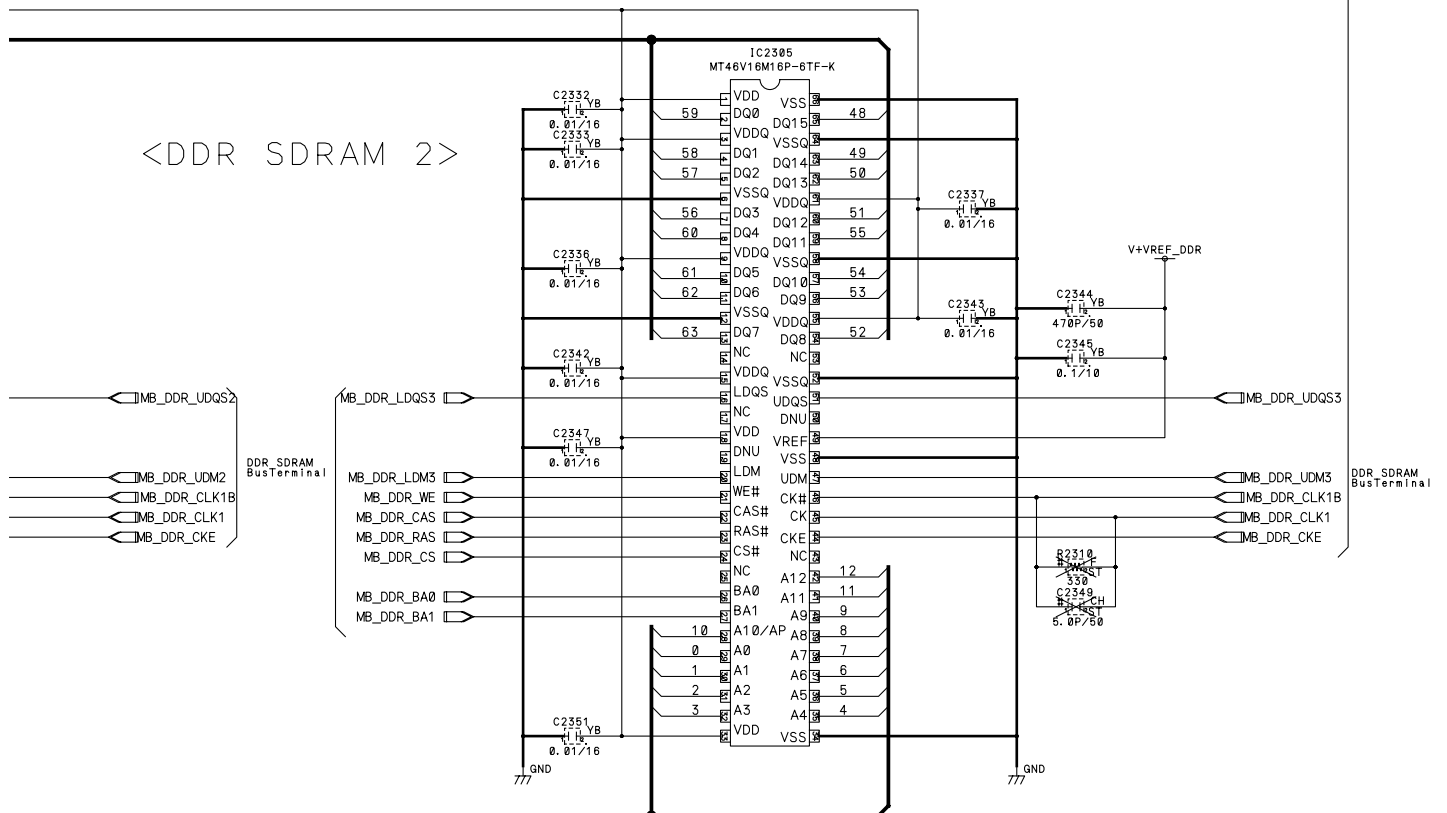
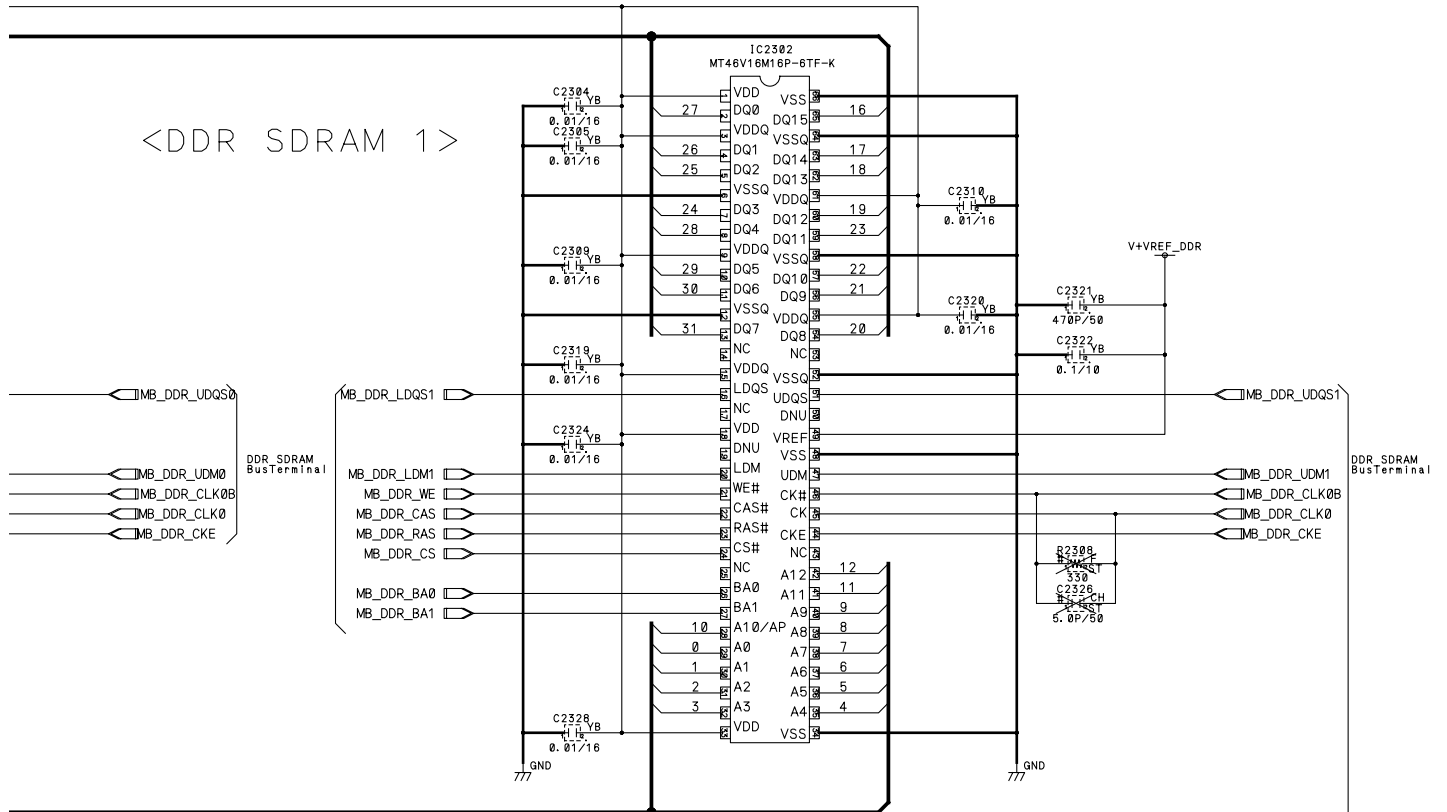
A • DDR SDRAM BLOCK

64bit Memory Bus



ITEM	USED	VACANT
C	2253-2255 2301-2352	2254 2314, 2325, 2326 2348, 2349
F	1002-1008	
IC	2301-2305	
R	2304	

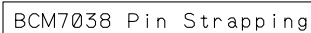
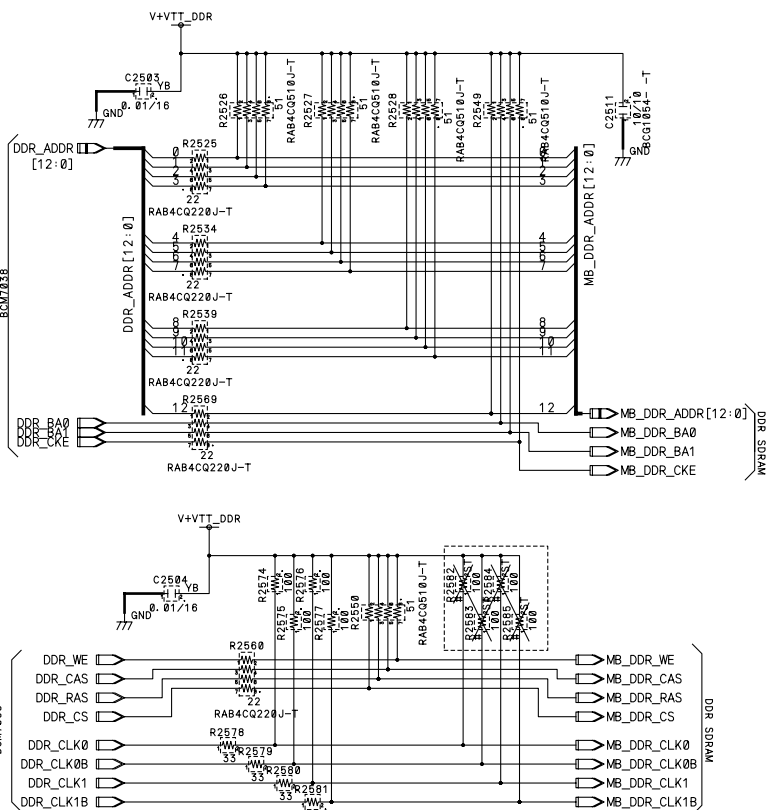
X: Don' t mount



△

Bus Terminal for DDR SDRAM

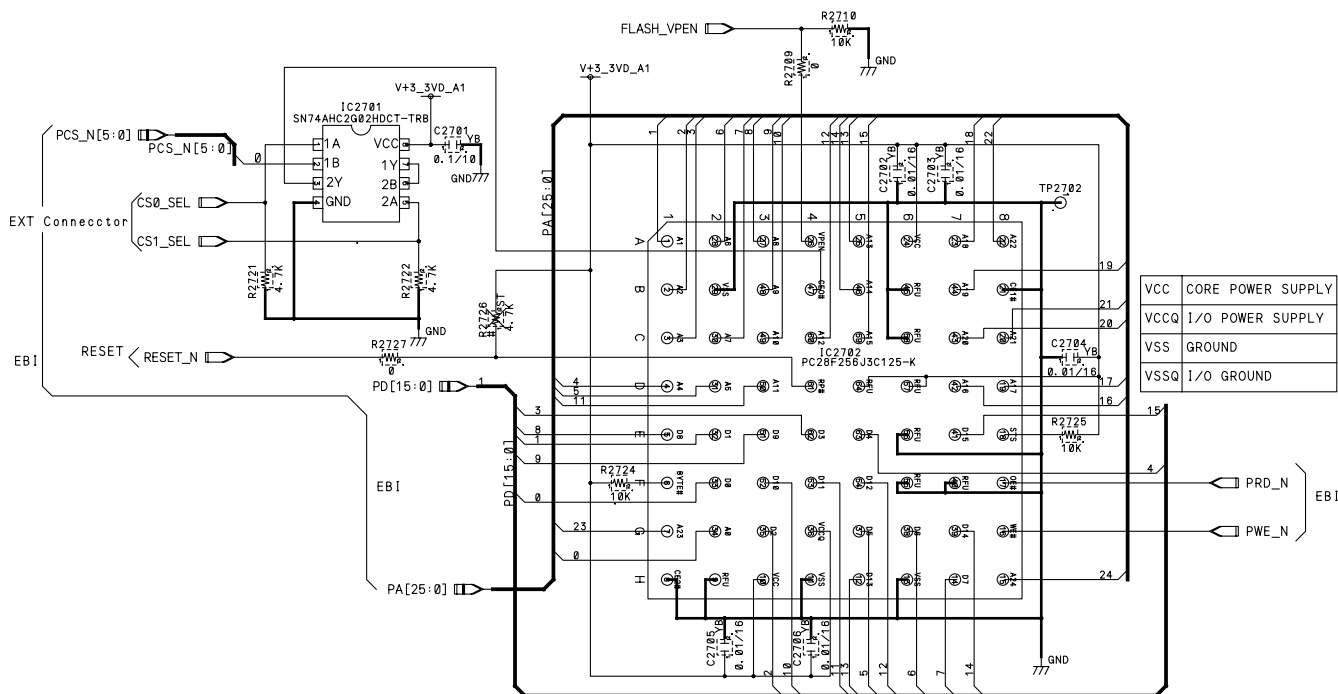




ITEM	USED	VACANT
C	2501-2511 2601-2611	
F	2601-2603	
R	2501-2581 2610-2670	2529, 2544, 2551 2611, 2613-2617, 2619 2621, 2623, 2624, 2628, 2629 2631, 2634, 2635 2640, 2641, 2644-2646, 2648 2650, 2651, 2665, 2666, 2669

X:Don' t mount

- FLASH, E2P BLOCK

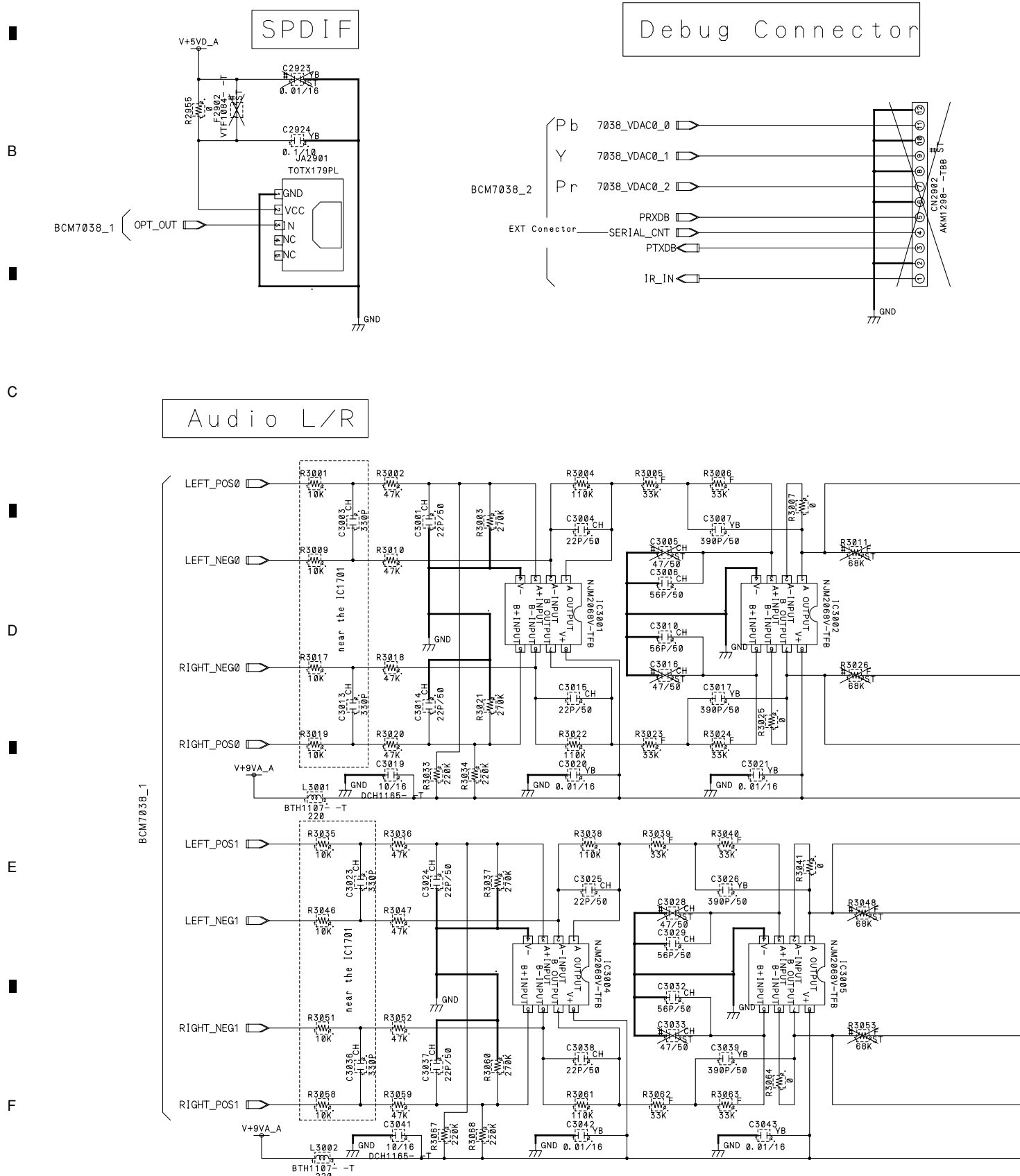
X: Don' t mount

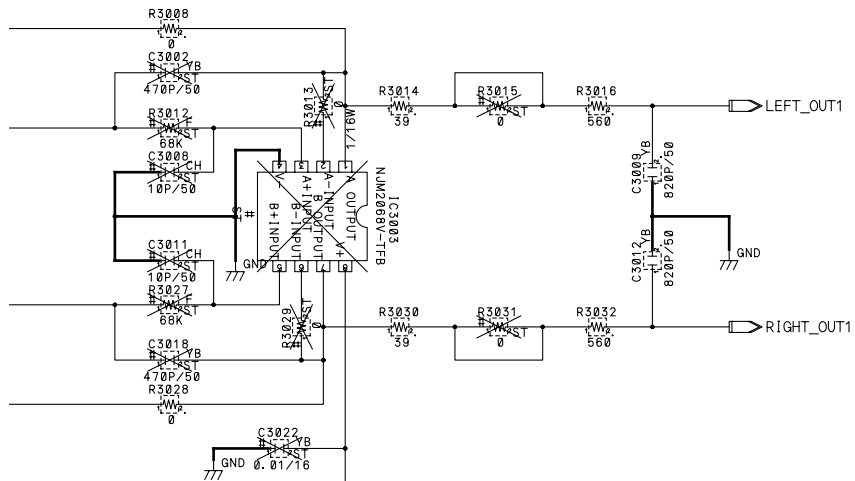
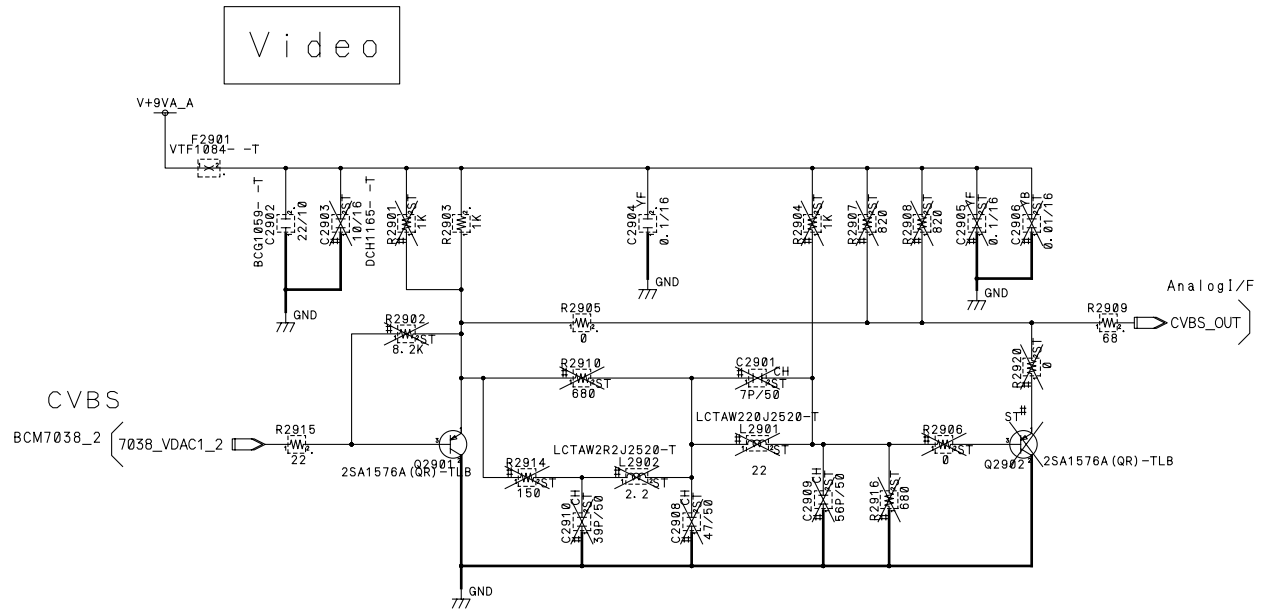


3.13 MR DTB ASSY (12/14)

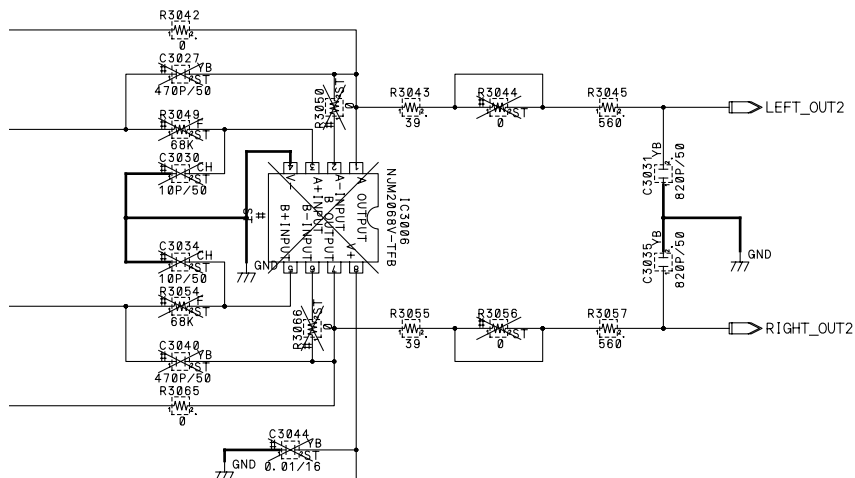
MR DTB ASSY (12/14)

• A/V OUT BLOCK





Analog I/F



ITEM	USED	VACANT
C	2902-2924 3001-3043	2903, 2905-2923 3002, 3005, 3008, 3011, 3016 3018, 3022, 3027, 3028, 3030 3033, 3034, 3040
F	2901	
IC	3001-3005	3003
JA	2901	
L	3001, 3002	
Q	2901	
R	2903-2915 2955 3001-3068	2904, 2906-2908, 2910-2914 3011-3013, 3015, 3026, 3027 3029, 3031, 3044, 3048-3050 3053, 3054, 3056, 3066

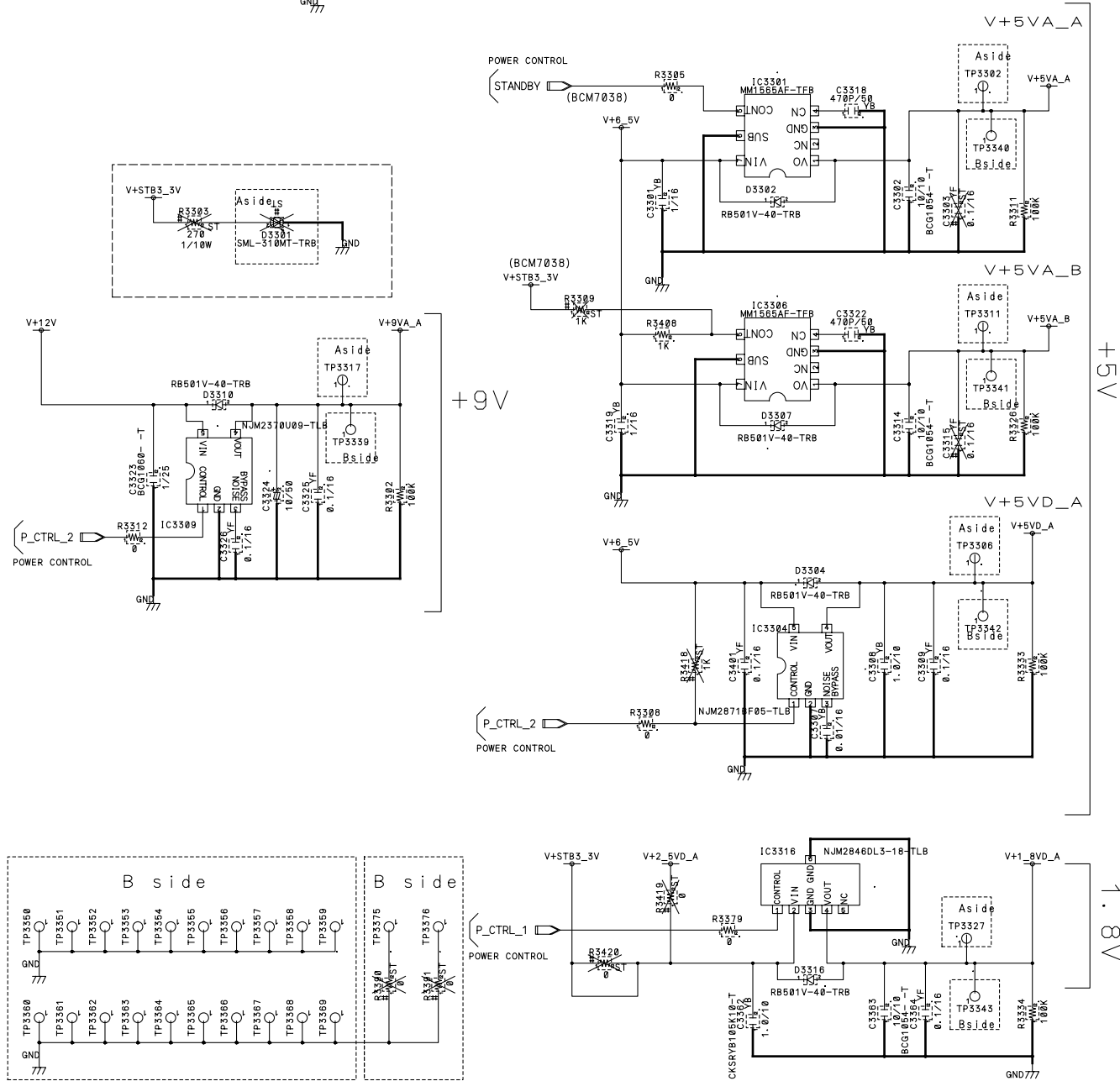
X: Don't mount

- POWER BLOCK (1/2)

F

ITEM	USED
C	3301, 3302, 3304-3311, 3313, 3314, 3318, 3319 3321-3326, 3351, 3353-3354, 3356, 3362-3364 3401, 3407-3412
CN	3301
D	3302-3305, 3307, 3309, 3310, 3314, 3316, 3317
F	3301, 3302
IC	3301, 3302, 3304-3307, 3309, 3315, 3316
L	3304
Q	3309
R	3301, 3302, 3304-3306, 3308, 3310-3312, 3318 3326, 3333, 3334, 3358, 3359, 3361-3363, 3379 3329, 3392, 3408

X: Don' t mount





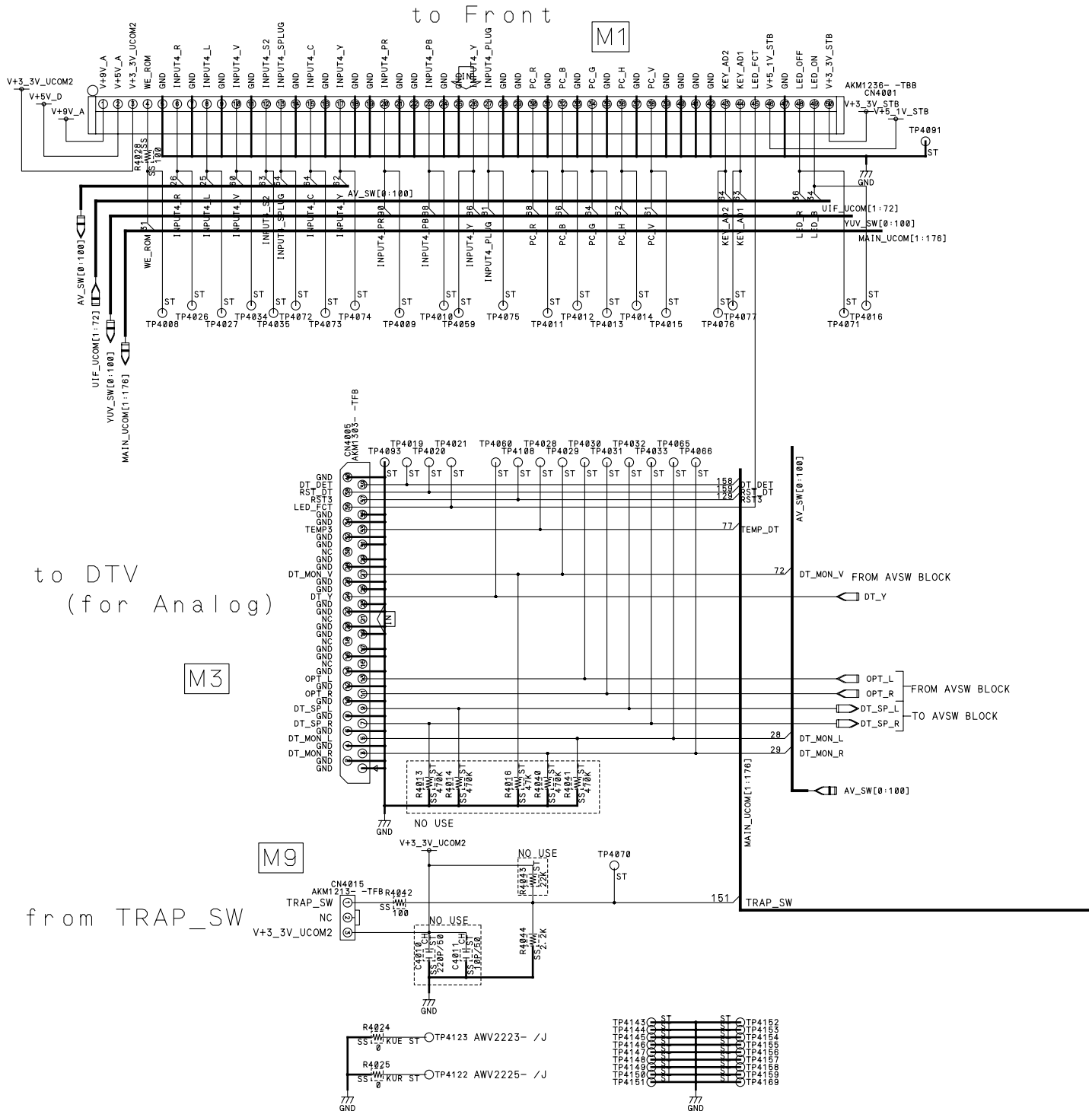
- POWER BLOCK (2/2)

A • POWER BLOCK (2/2)



- BOARD IF BLOCK

ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4010-4011		
CN	4001-4015	4008, 4010-4014,	4002-4003, 4008, 4010-4014,
D	4001-4001		
L	4001-4002		
Q	4001-4001		
R	4001-4044	4009, 4012, 4015, 4017-4020, 4025, 4030-4039,	4009, 4012, 4015, 4019-4020, 4024, 4030-4039,



- REG BLOCK

For CCDUCOM

REG 1.5V

DC 1.5V±2%

REG 3.3V

/ DC 3. 3V±2%

REG 1.8V

DC1. 8V±2. 5%

REG 1.8V

DC1. 8V±2%

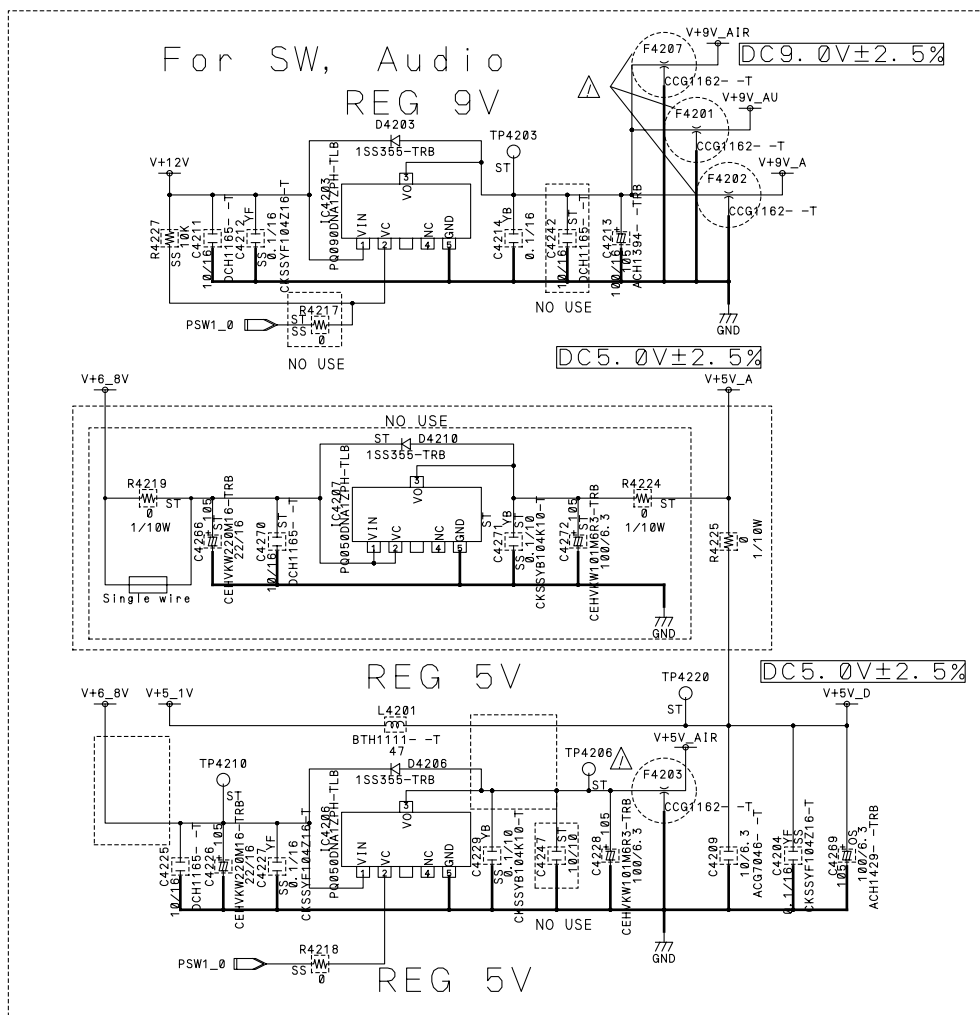
Active 47 from IFUCOM
UIF_UCOM[1:72] UIF_UCOM[1:72]

DC1. 2V±2%

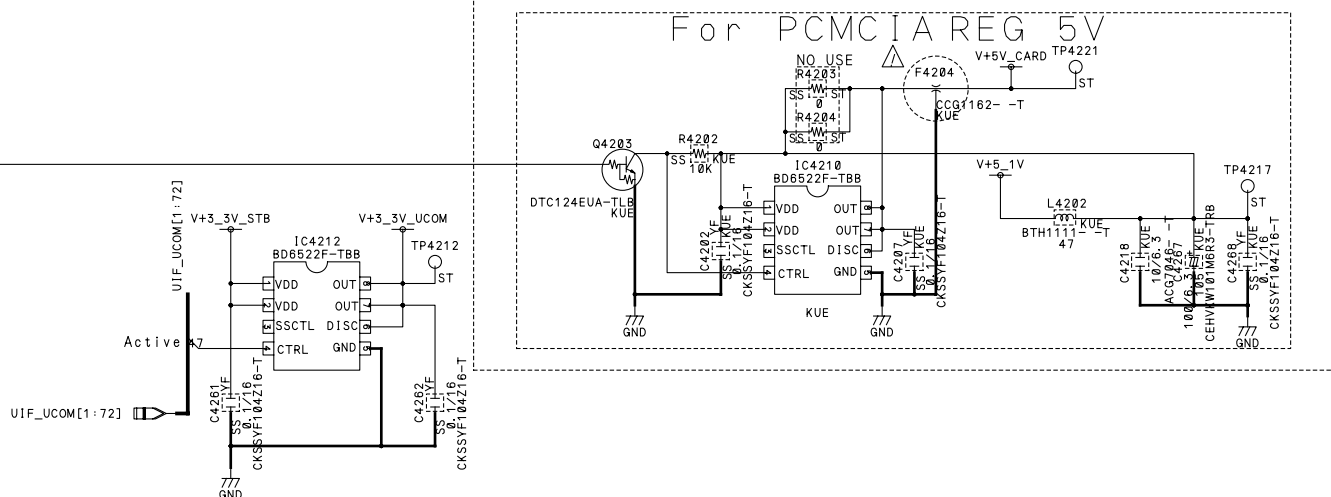
DC3. 3V±2.58%

DC 1.8V \pm 3%

ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4202-4273	4203, 4205, 4233-4237, 4239, 4241, 4249, 4265,	4202, 4203, 4205, 4207, 4218, 4233-4237, 4239, 4241, 4249, 4265, 4267-4268,
D	4202-4211	4207-4208,	4207-4208,
F	4201-4207	4206,	4204, 4206,
IC	4202-4212	4208,	4208,
L	4201-4206	4204-4205,	4202, 4204-4206,
Q	4201-4203		4203,
R	4201-4228	4207-4208,	4202, 4207-4208
U	4201-4201		



AWV2223- /J ONLY

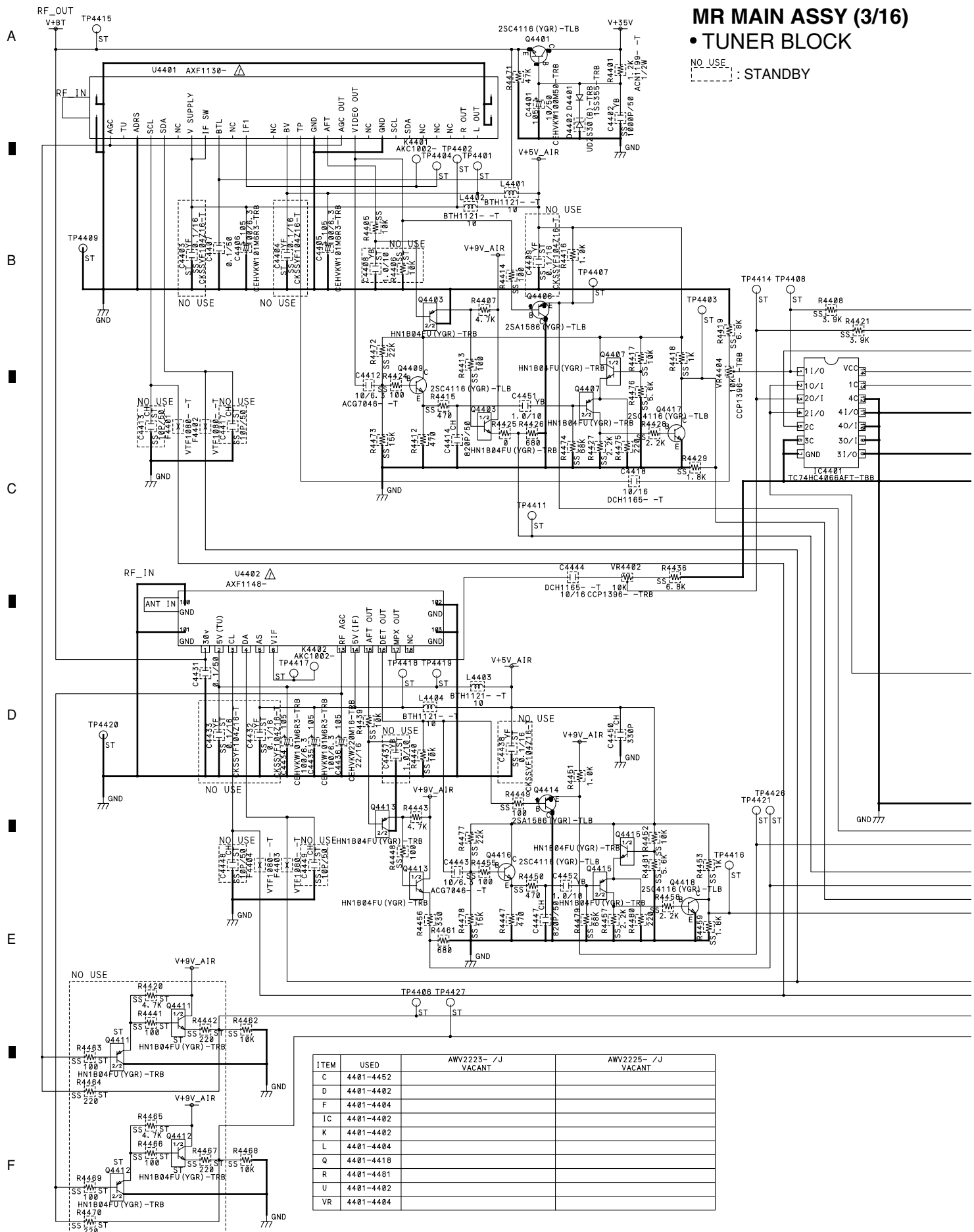


3.18 MR MAIN ASSY (3/16)

MR MAIN ASSY (3/16)

• TUNER BLOCK

NO USE : STANDBY



A

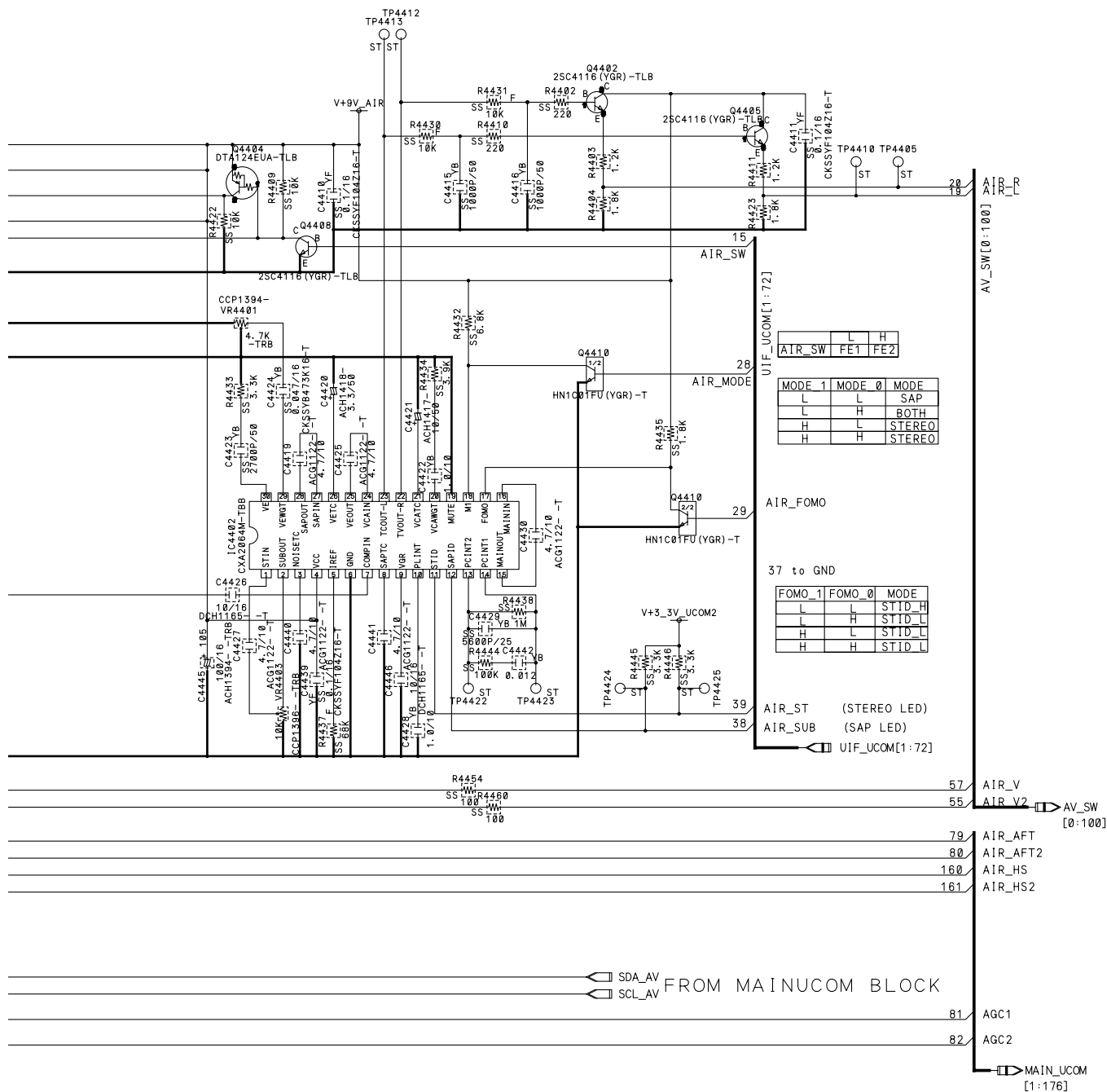
B

C

D

E

F



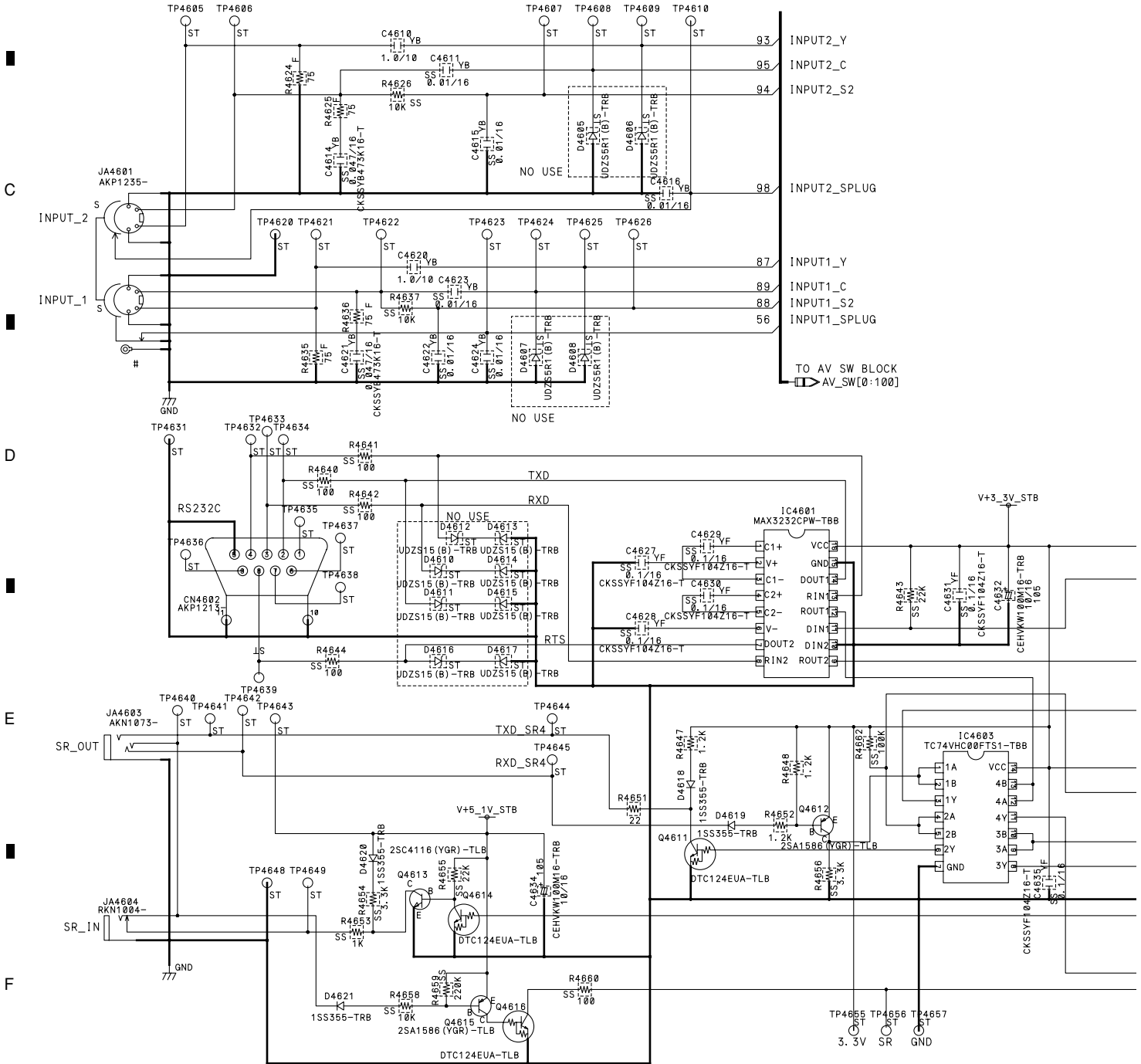
3.19 MR MAIN ASSY (4/16)

MR MAIN ASSY (4/16)

• AV IO BLOCK

NO USE
STANDBY

	AWV2223- /J	AWV2225- /J
JA4601	AKP1235-	AKP1234-
JA4605	AKB1323-	AKB1319-

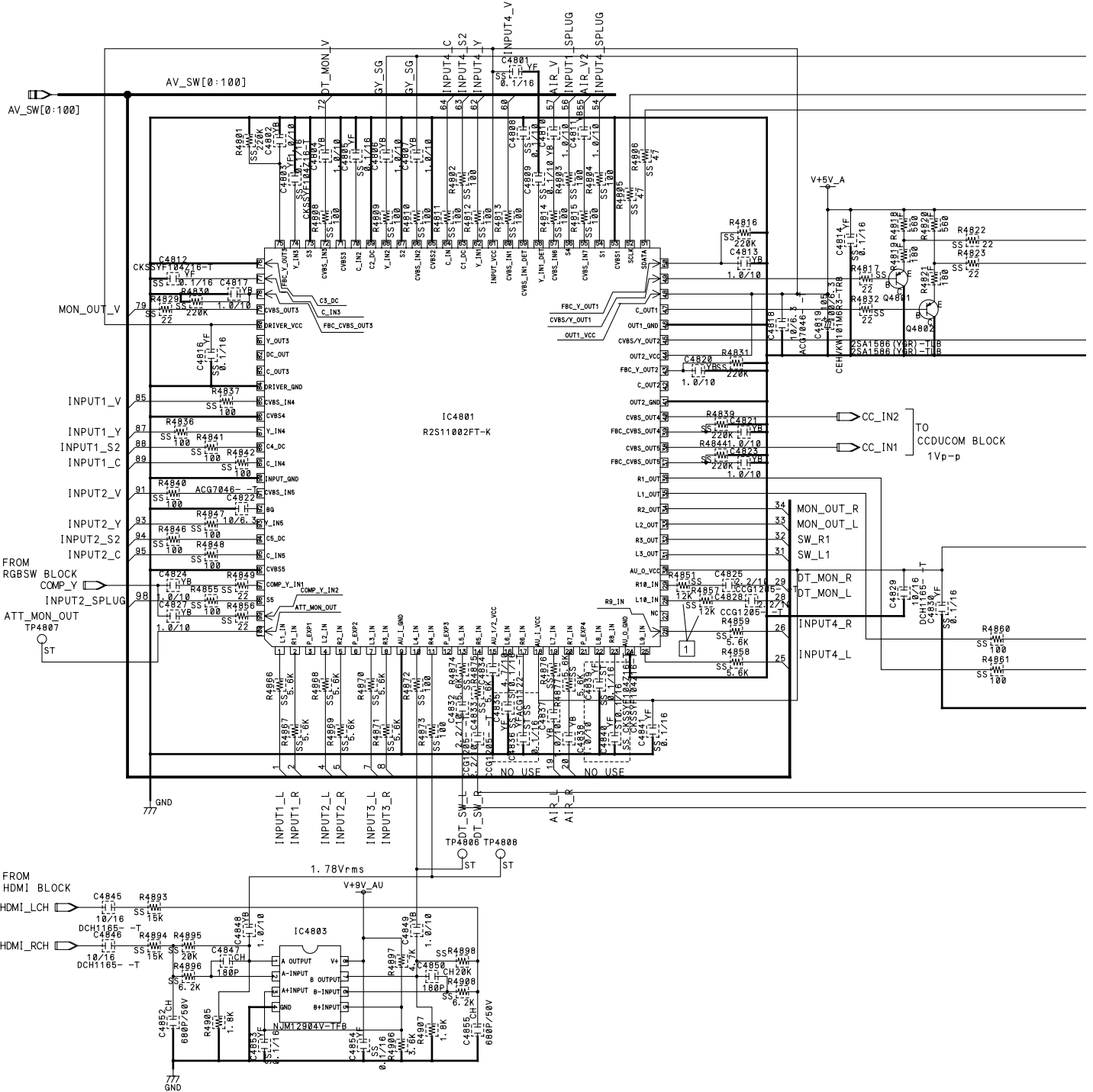


3.20 MR MAIN ASSY (5/16)

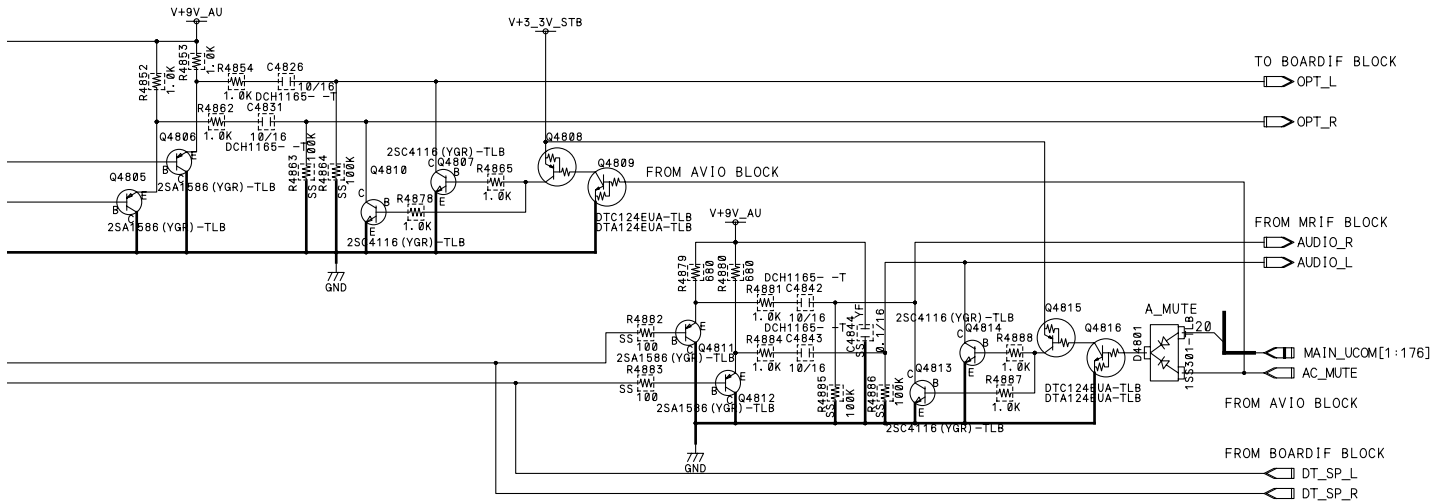
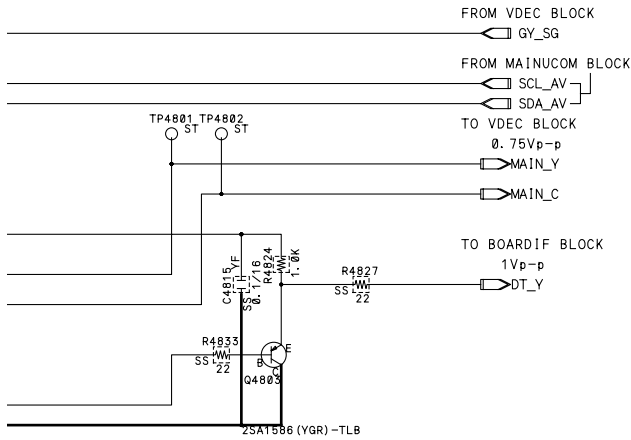
MR MAIN ASSY (5/16)

• AV SW BLOCK

NO USE
STANDBY



ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4801-4855	4851,	4851,
D	4801-4801		
IC	4801-4803	4802,	4802,
Q	4801-4816	4804,	4804,
R	4801-4908	4807, 4825-4826, 4828, 4834-4835, 4838, 4843, 4845, 4850, 4889-4892, 4899-4904,	4807, 4825-4826, 4828, 4834-4835, 4838, 4843, 4845, 4850, 4889-4892, 4899-4904,



4

A • IF UCOM BLOCK

A



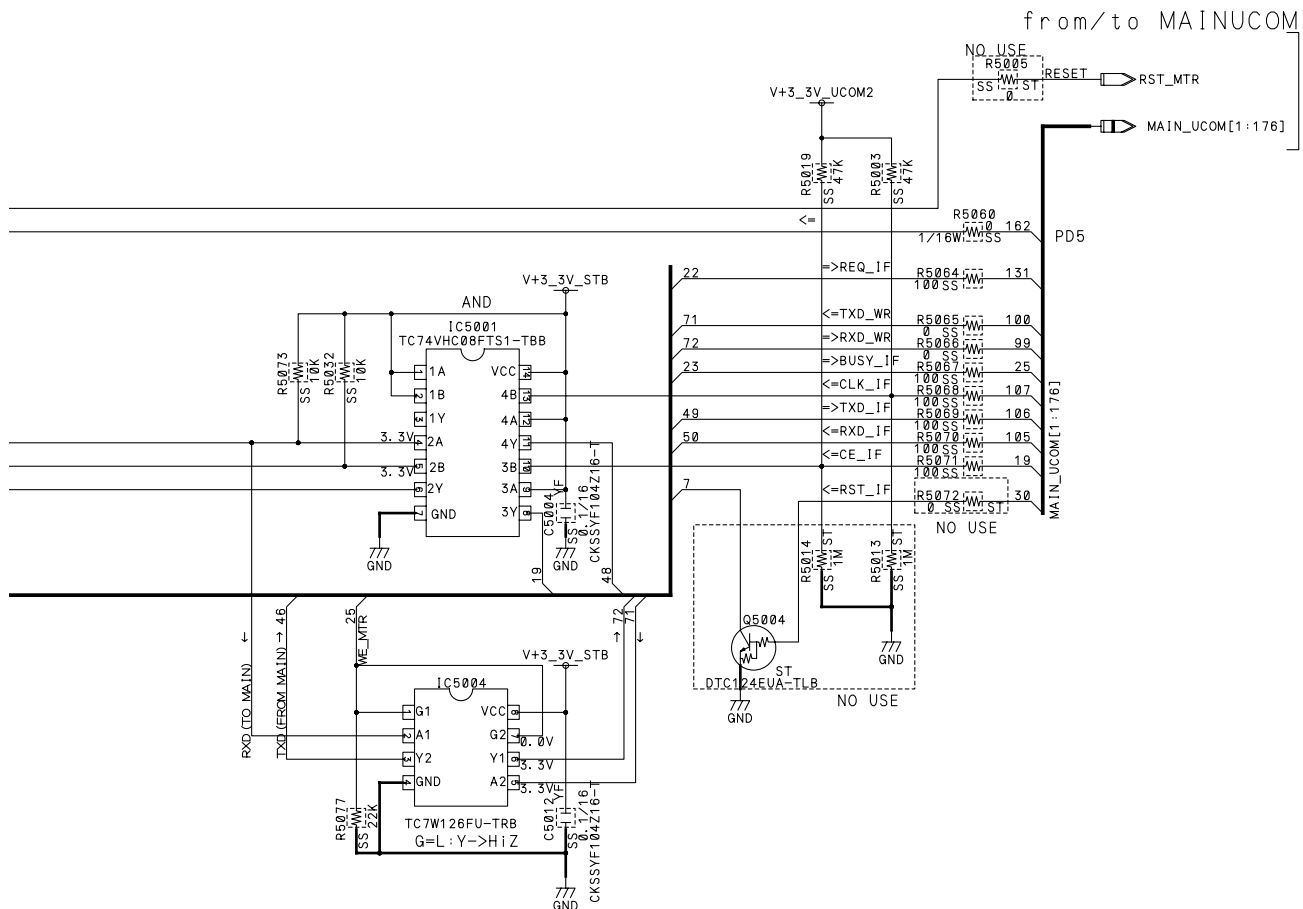
C

D

E

F

ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	5001-5012	5006,	5006,
IC	5001-5004		
Q	5001-5004	5002-5003,	5002-5003,
R	5001-5077	5008, 5018, 5024, 5027-5029, 5031, 5033, 5038-5042, 5045, 5048-5049, 5054, 5056-5059, 5061, 5074-5076,	5008, 5018, 5024, 5027-5029, 5031, 5033, 5038-5042, 5045, 5048-5049, 5054, 5056-5059, 5061, 5074-5076,
X	5001-5002		



- MAIN UCOM BLOCK

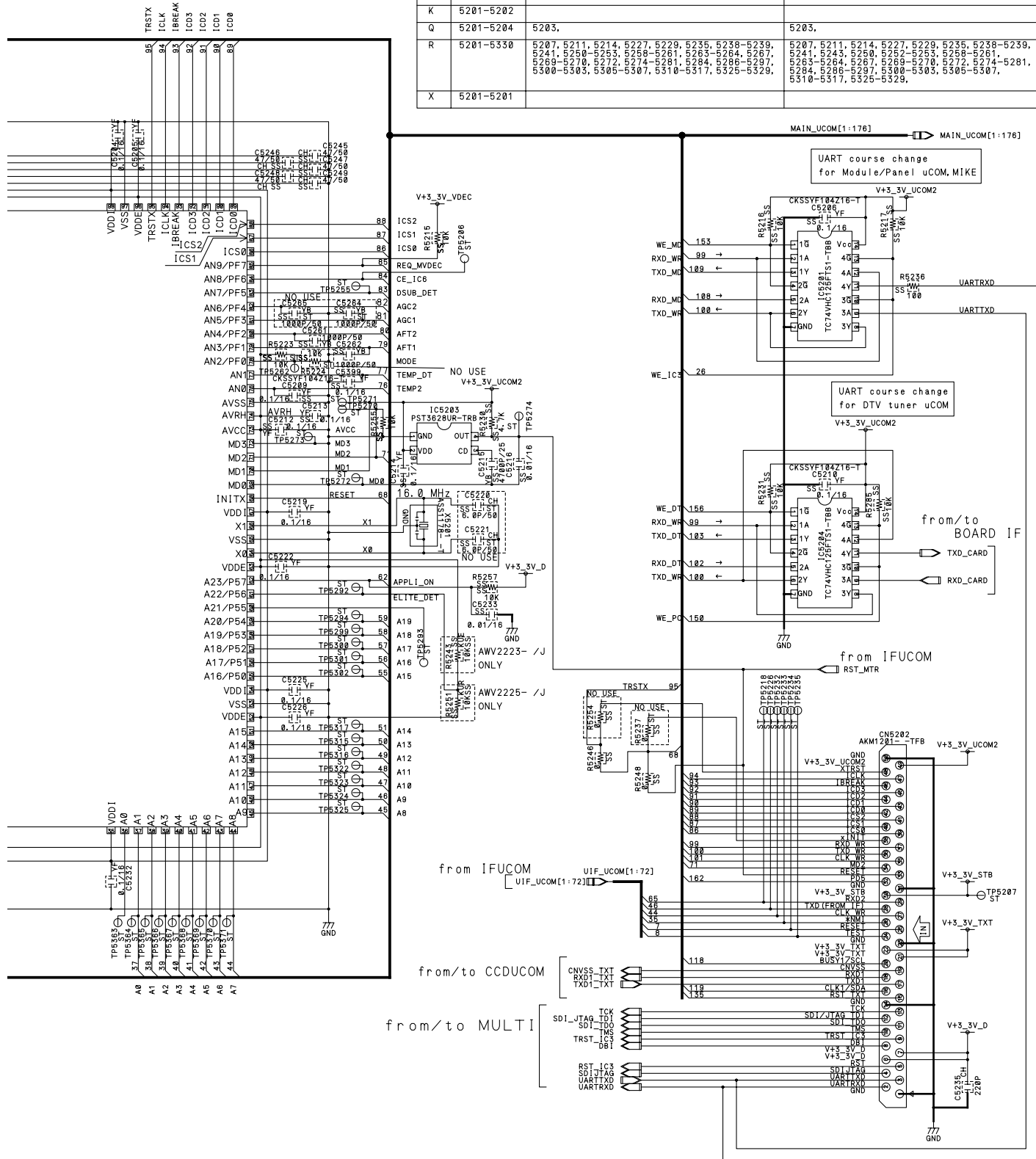
MAIN UCOM

IC5206
MB91305PMC-G-BND-K

BOARD OF

PDP-R06U

ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	5201-5399	5237, 5239, 5250-5251, 5266-5275, 5277-5398,	5237, 5239, 5250-5251, 5266-5275, 5277-5398,
CN	5202-5202		
D	5201-5203	5202,	5202,
IC	5201-5213	5205, 5208,	5205, 5208,
K	5201-5202		
Q	5201-5204	5203,	5203,
R	5201-5330	5207, 5211, 5214, 5227, 5229, 5235, 5238-5239, 5241, 5250-5251, 5253, 5255, 5258-5261, 5263-5264, 5267, 5269-5270, 5272, 5274-5281, 5284, 5286-5297, 5300-5303, 5305-5307, 5310-5317, 5325-5329,	5207, 5211, 5214, 5227, 5229, 5235, 5238-5239, 5241, 5243, 5250, 5252-5253, 5255, 5258-5261, 5263-5264, 5267, 5269-5270, 5272, 5274-5281, 5284, 5286-5297, 5300-5303, 5305-5307, 5310-5317, 5325-5329,
X	5201-5201		

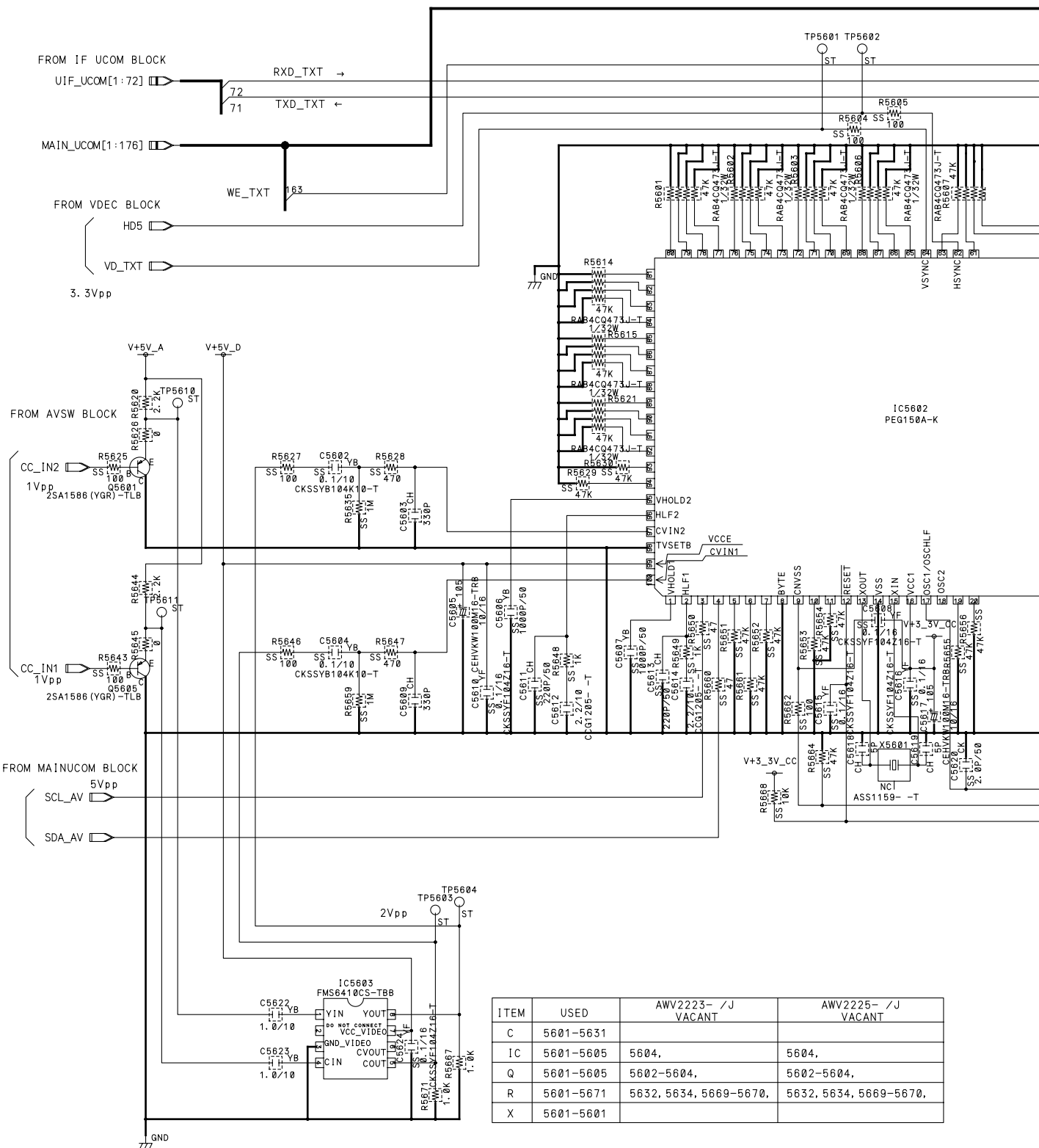


3.23 MR MAIN ASSY (8/16)

MR MAIN ASSY (8/16)

• CCD UCOM BLOCK

NO USE
: STANDBY





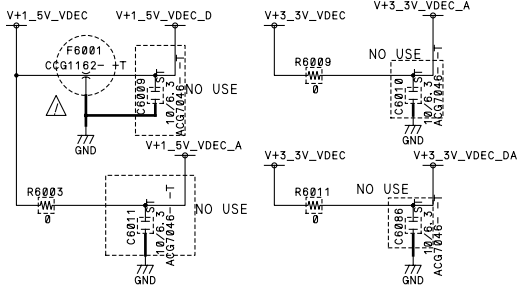
3.24 MR MAIN ASSY (9/16)

MR MAIN ASSY (9/16)

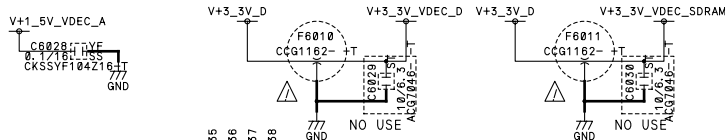
• VDEC BLOCK

A

NO USE : STANDBY



B



C

from CCDUCOM
BLK
G_CCTXT
B_CCTXT
R_CCTXT

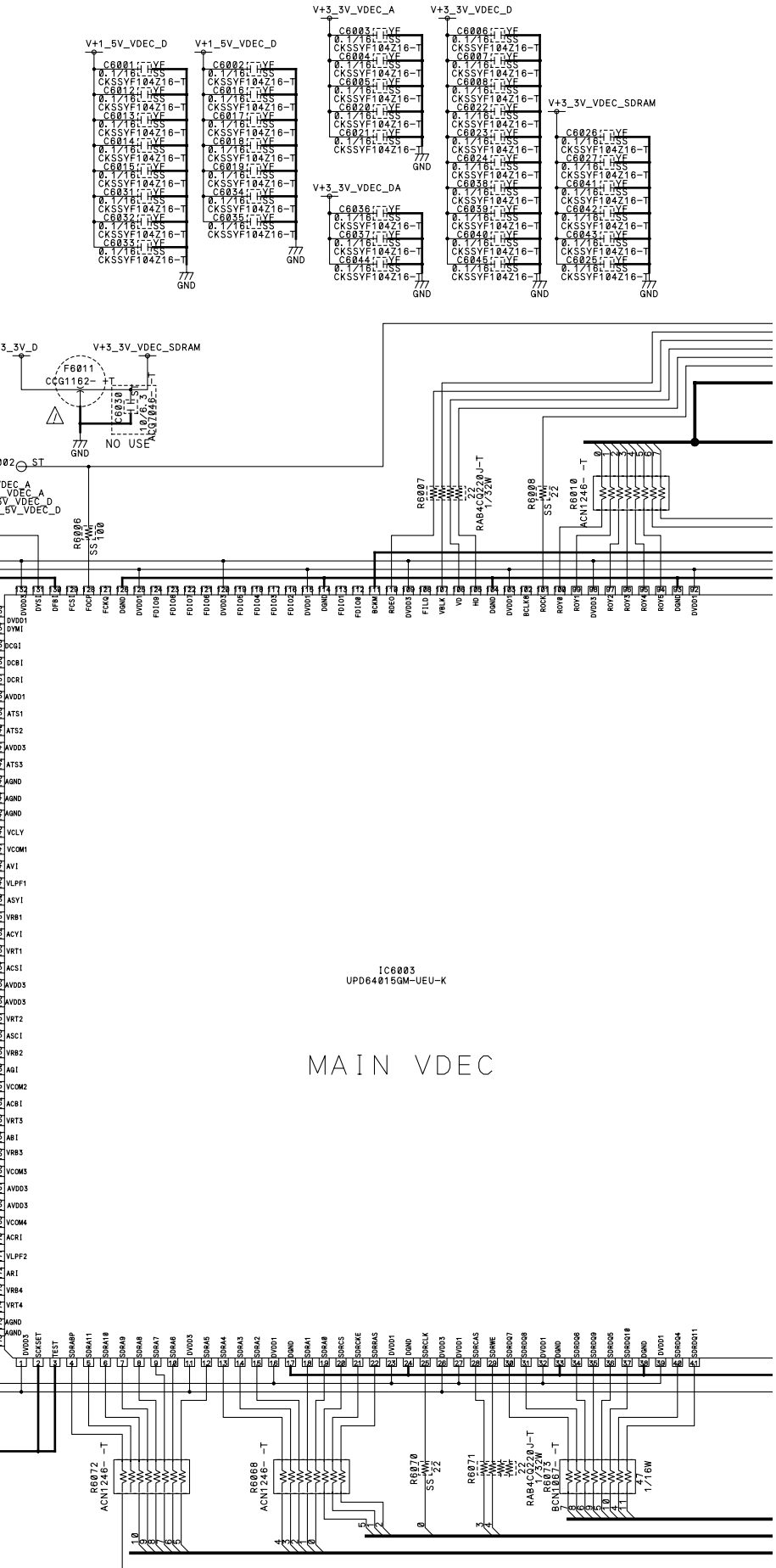
from AVSW
MAIN_Y
MAIN_C
0.75Vp-p

from RGBSW
GY_VDEC
BCB_VDEC
RCR_VDEC

D

E

F



MAIN VDEC

A

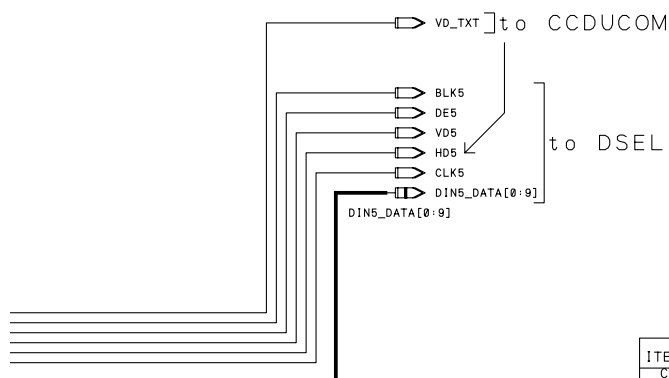
B

C

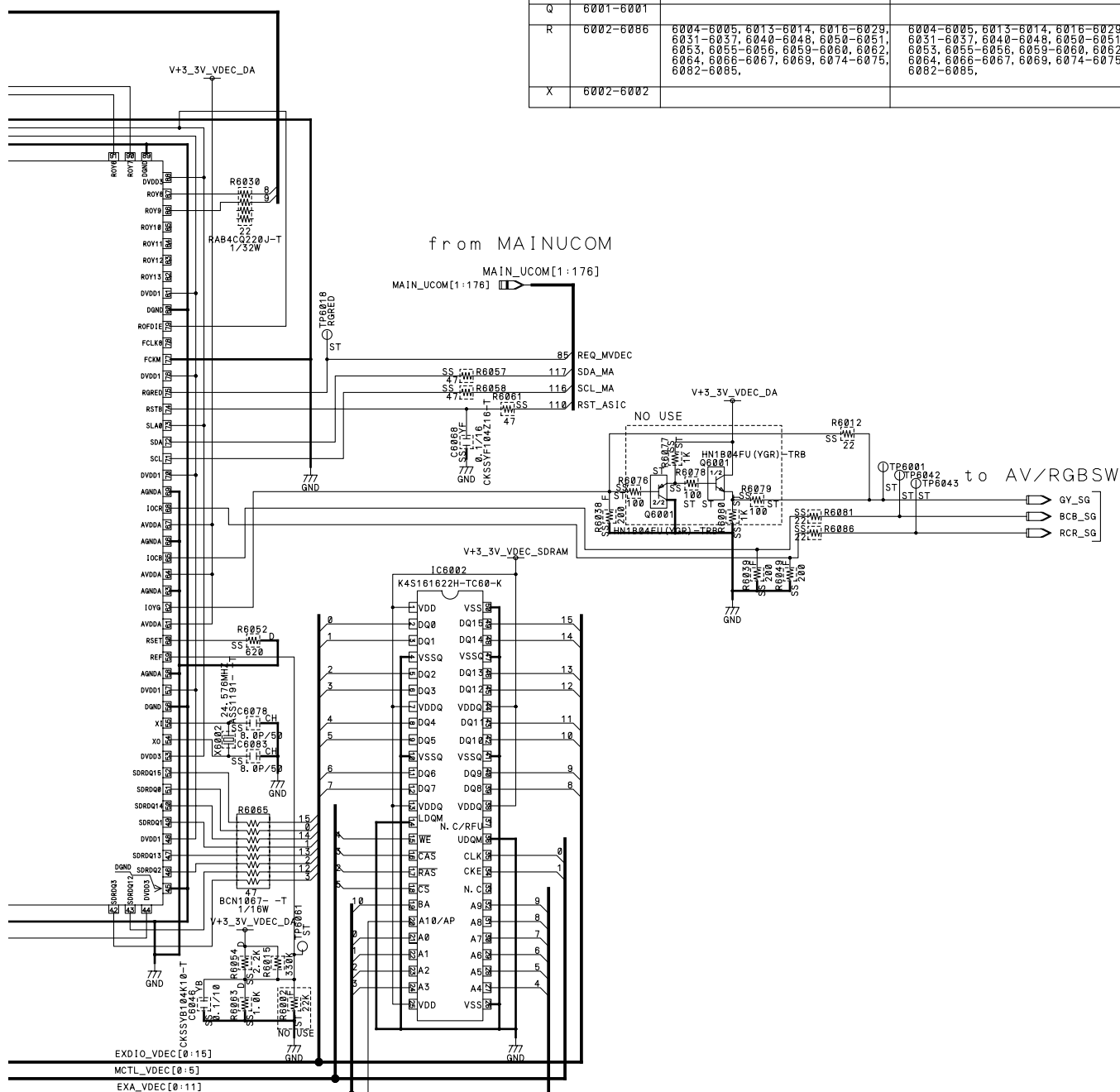
D

E

F



ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	6001-6008	6053-6055, 6057, 6059-6061, 6087,	6053-6055, 6057, 6059-6061, 6087,
F	6001-6011	6003-6009,	6003-6009,
IC	6002-6003		
Q	6001-6001		
R	6002-6006	6004-6005, 6013-6014, 6016-6029, 6031-6037, 6040-6048, 6050-6051, 6053, 6059-6059, 6059-6060, 6062, 6064, 6066-6067, 6069, 6074-6075, 6082-6085,	6004-6005, 6013-6014, 6016-6029, 6031-6037, 6040-6048, 6050-6051, 6053, 6059-6059, 6059-6060, 6062, 6064, 6066-6067, 6069, 6074-6075, 6082-6085,
X	6002-6002		



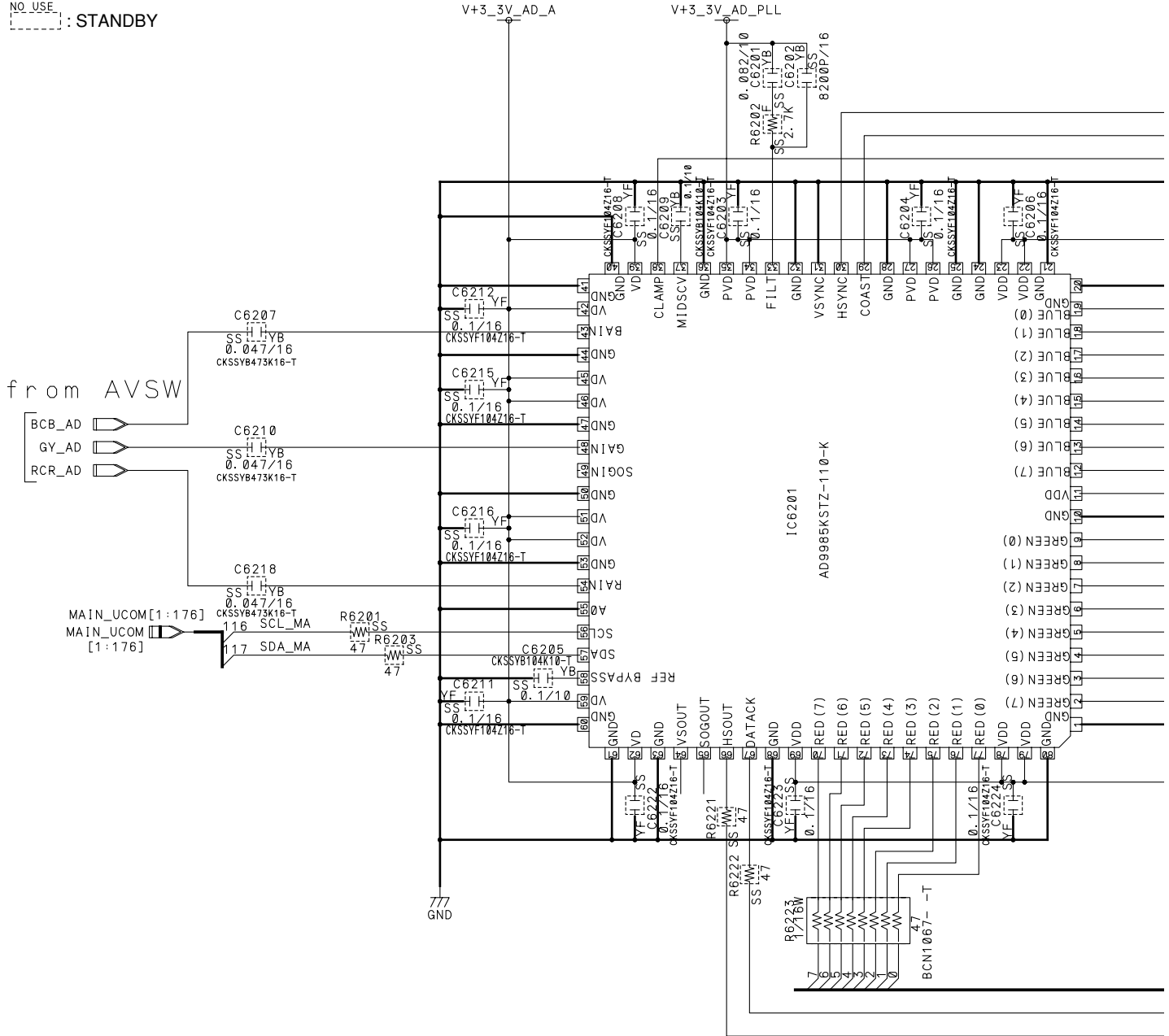
1 2 3 4

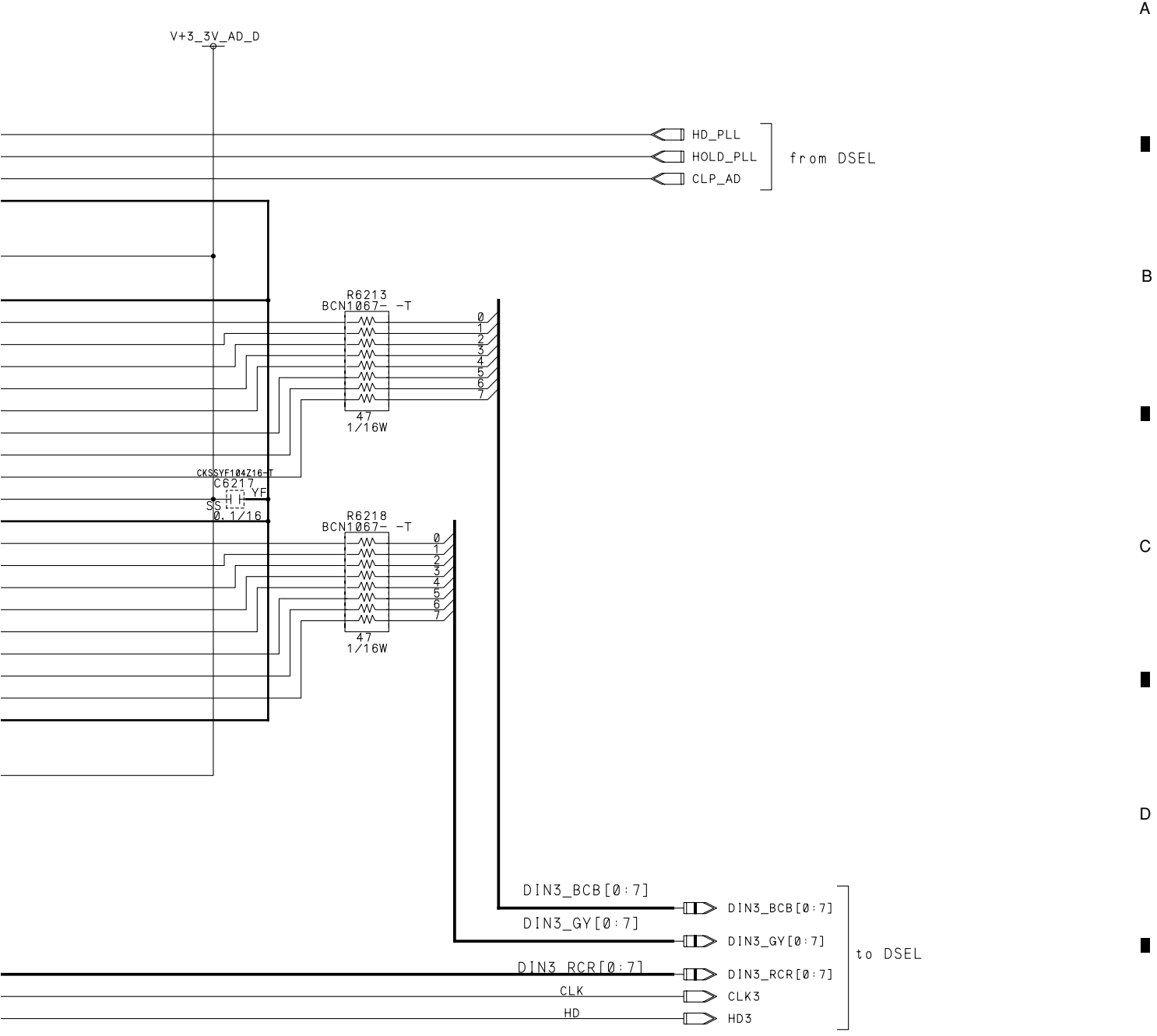
3.25 MR MAIN ASSY (10/16)

MR MAIN ASSY (10/16)

• ADC BLOCK

NO USE : STANDBY





ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	6201-6228	6213-6214, 6219-6221, 6226,	6213-6214, 6219-6221, 6226,
F	6201-6204	6202-6203,	6202-6203,
IC	6201-6201		
R	6201-6223	6204-6212, 6214-6217, 6219,	6204-6212, 6214-6217, 6219,

△

A

NO USE



A

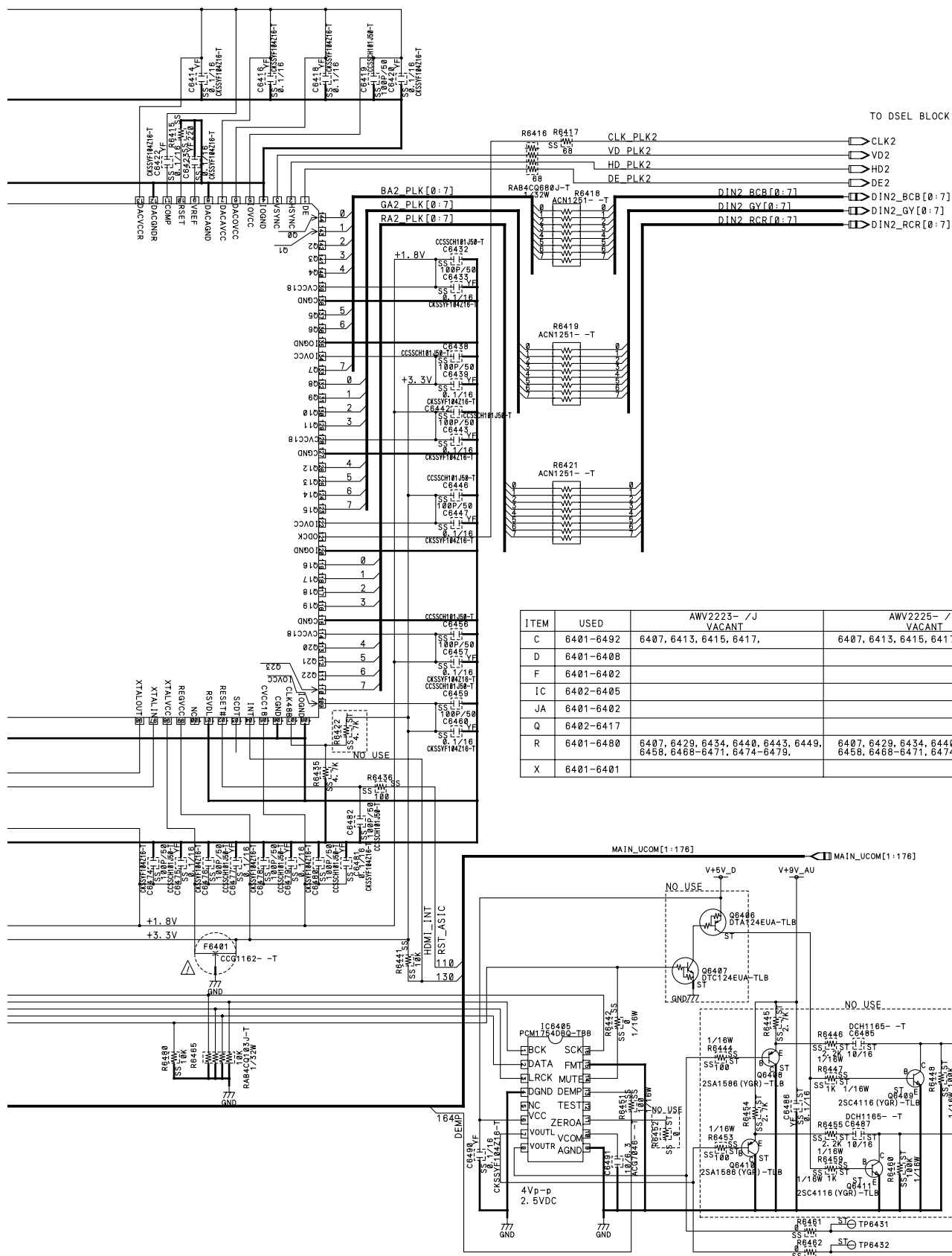
B

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4



4

- IP BLOCK



△

A



A

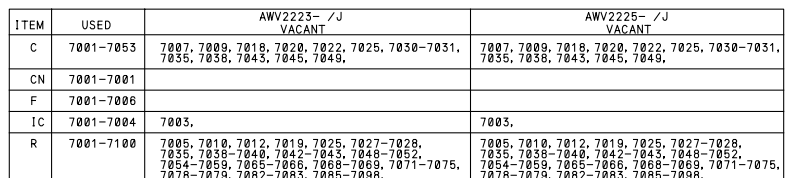
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C

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E

F



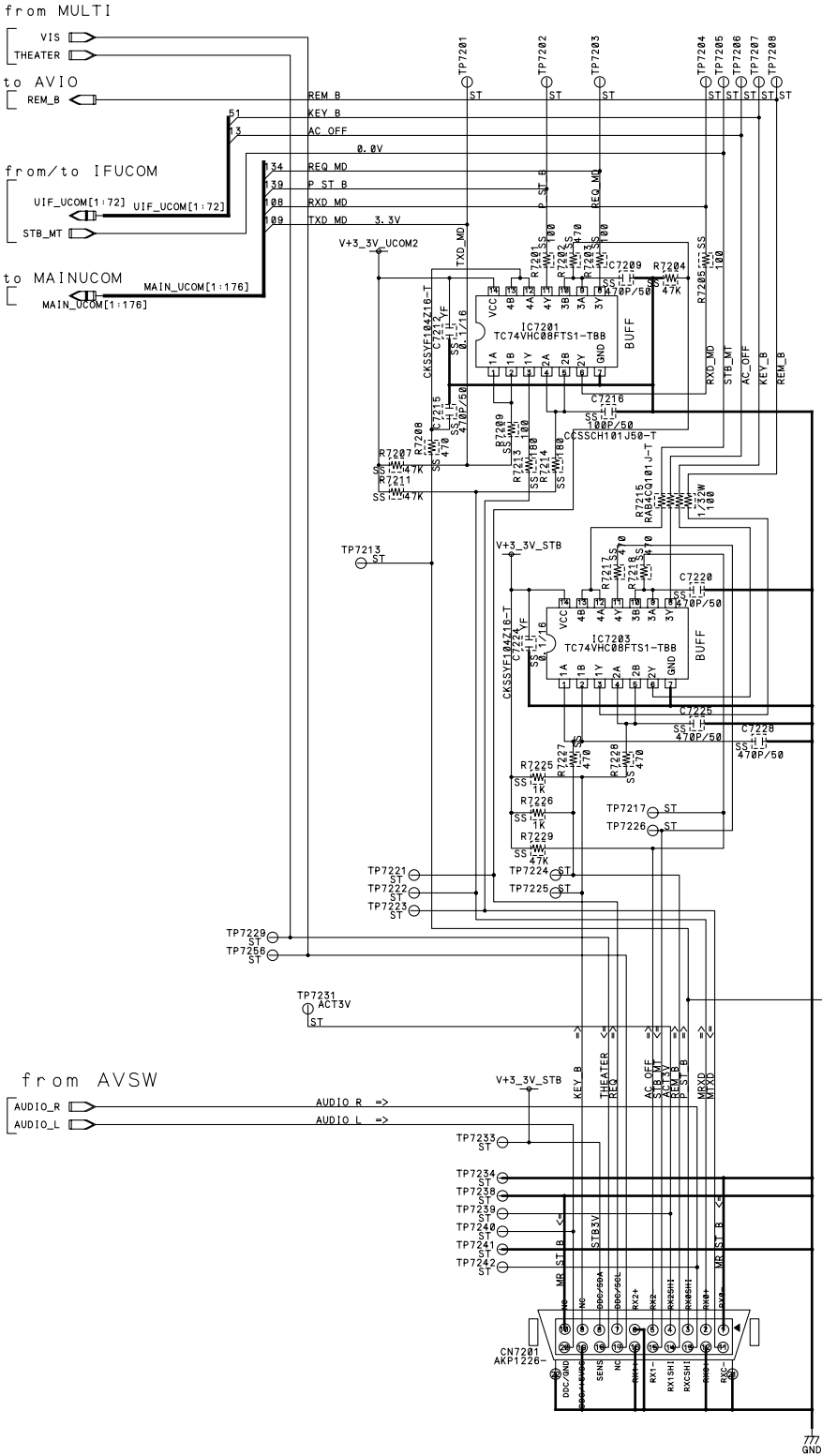
1 2 3 4

3.30 MR MAIN ASSY (15/16)

MR MAIN ASSY (15/16)

•MR IF BLOCK

NO USE
: STANDBY

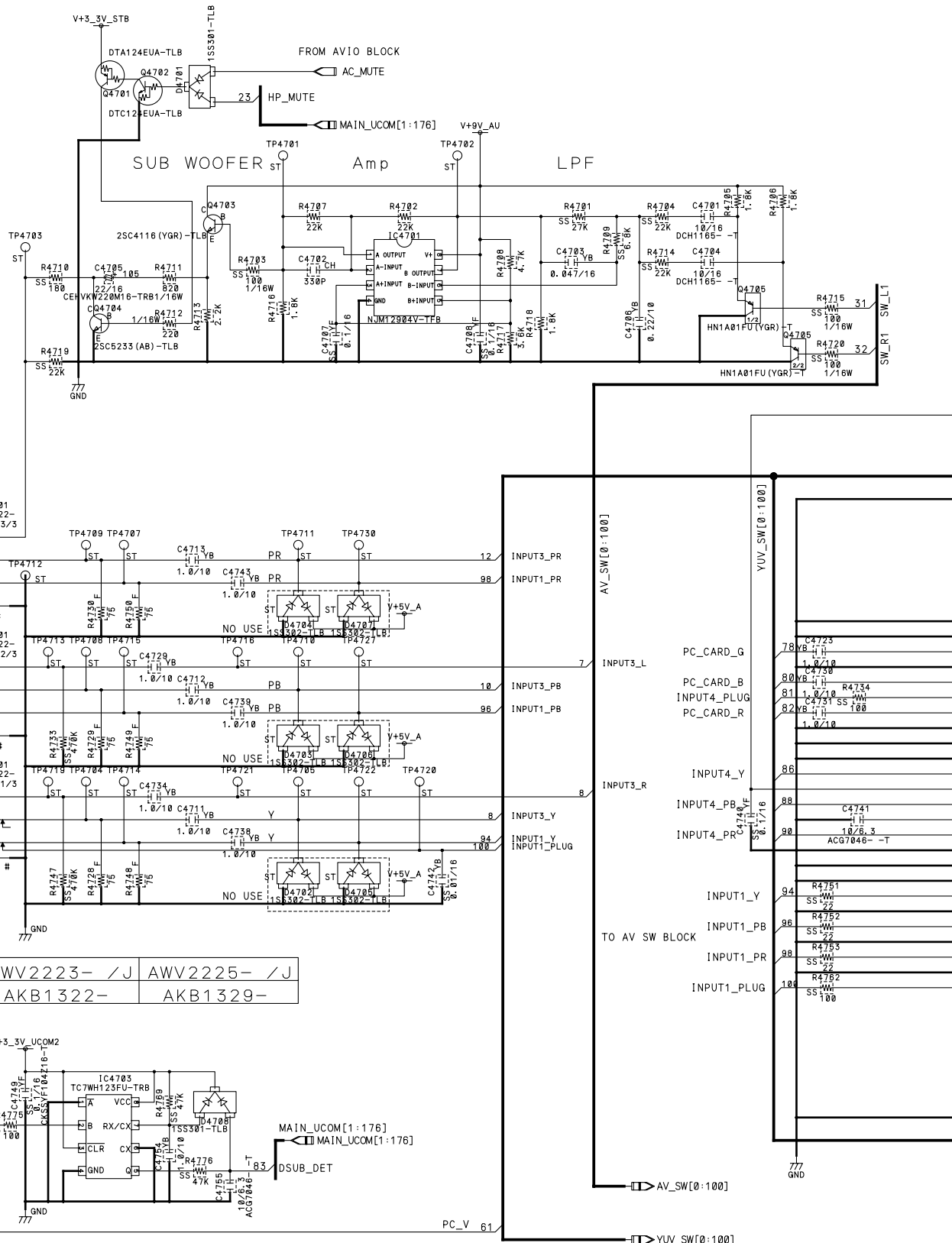


3.31 MR MAIN ASSY (16/16)

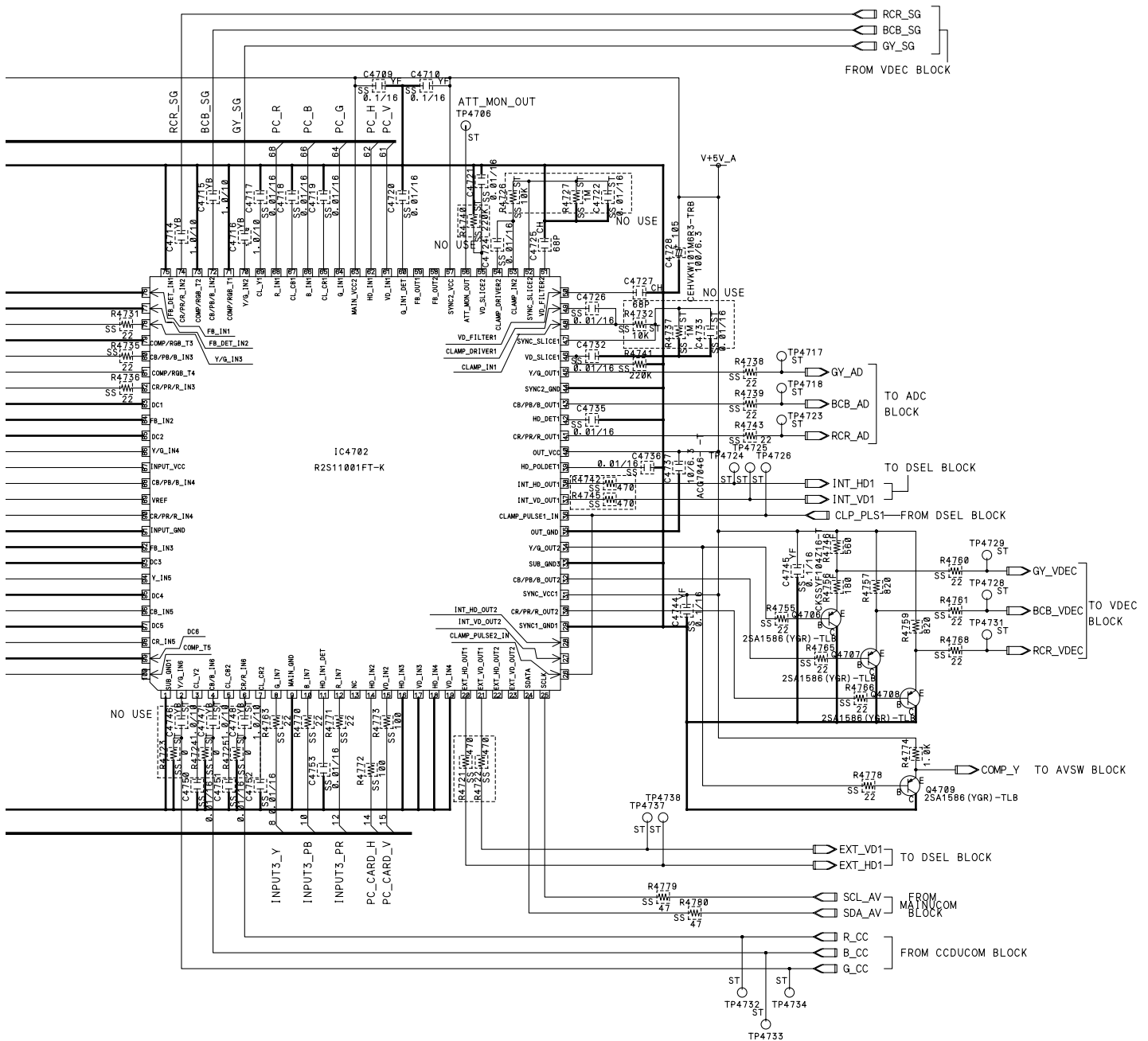
MR MAIN ASSY (16/16)

• RGB SW BLOCK

NO USE : STANDBY

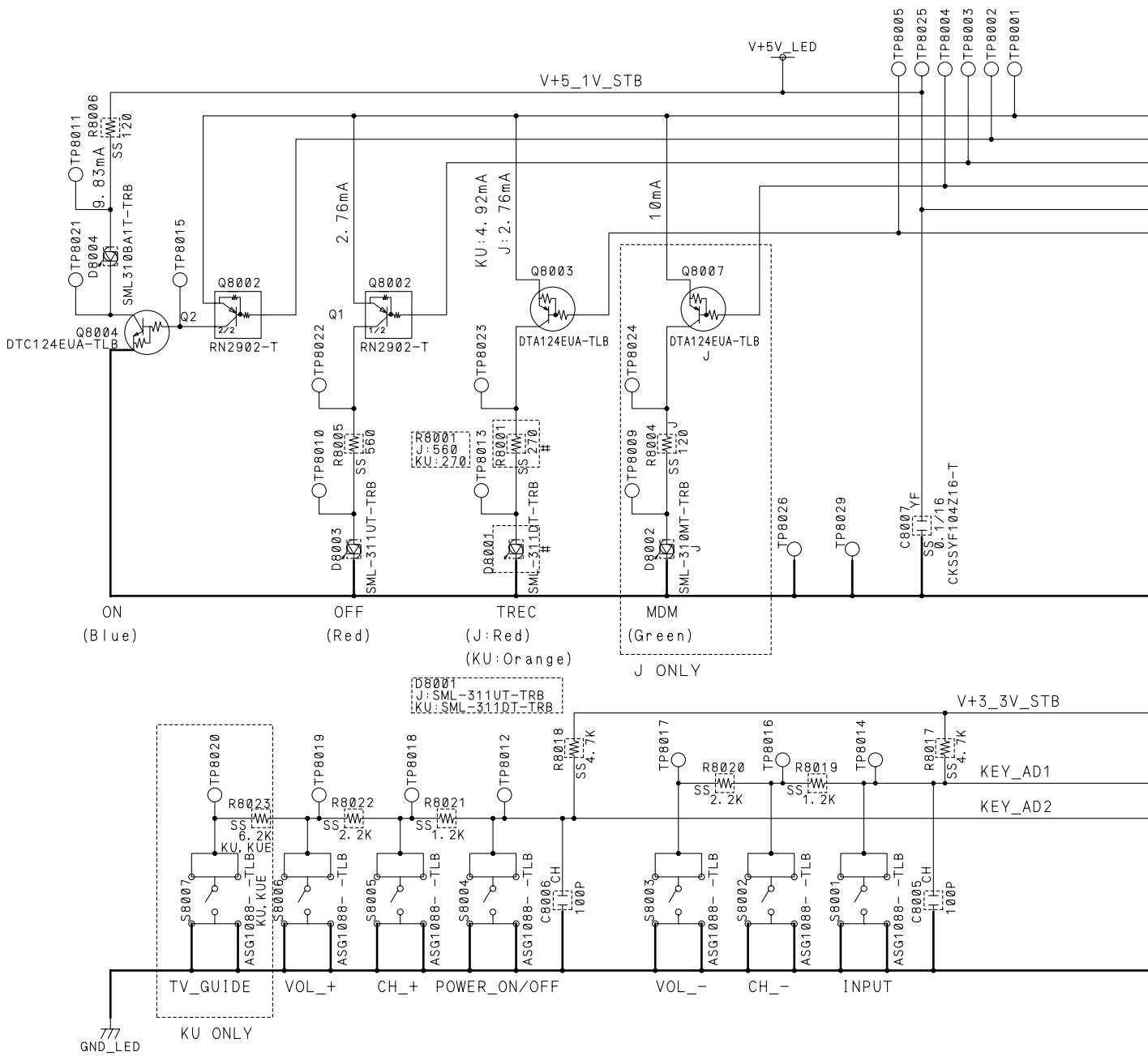


ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4701-4755		
D	4701-4708		
IC	4701-4703		
JA	4701-4701		
Q	4701-4709		
R	4701-4780	4744, 4754, 4758, 4764, 4767, 4777,	4744, 4754, 4758, 4764, 4767, 4777,



3.32 LED ASSY

LED ASSY



KEY_AD1 voltage

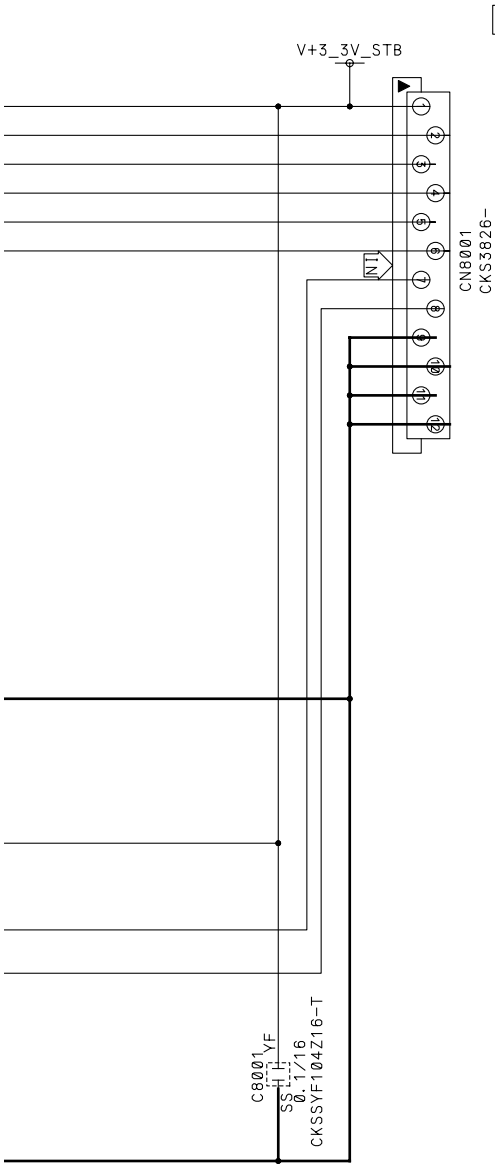
Pushed KEY	Typ.	Thr.
NO USE	3. 30	2. 51
----	----	
VOL_ -	1. 39	1. 70
CH_ -	0. 67	0. 99
INPUT	0	0. 38

KEY_AD2 voltage

Pushed KEY	Typ.	Thr.
NO USE	3. 30	2. 51
TV_GUIDE	2. 21	
VOL_ +	1. 39	1. 70
CH_ +	0. 67	0. 99
POWER_ON/OFF	0	0. 38

[V]

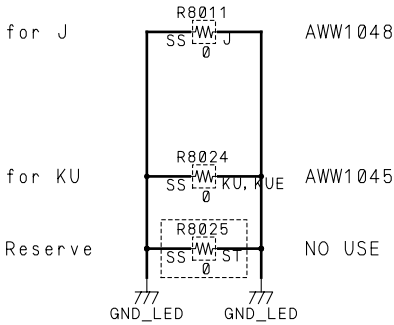
[V]



L1
TO FRONT Ass'y

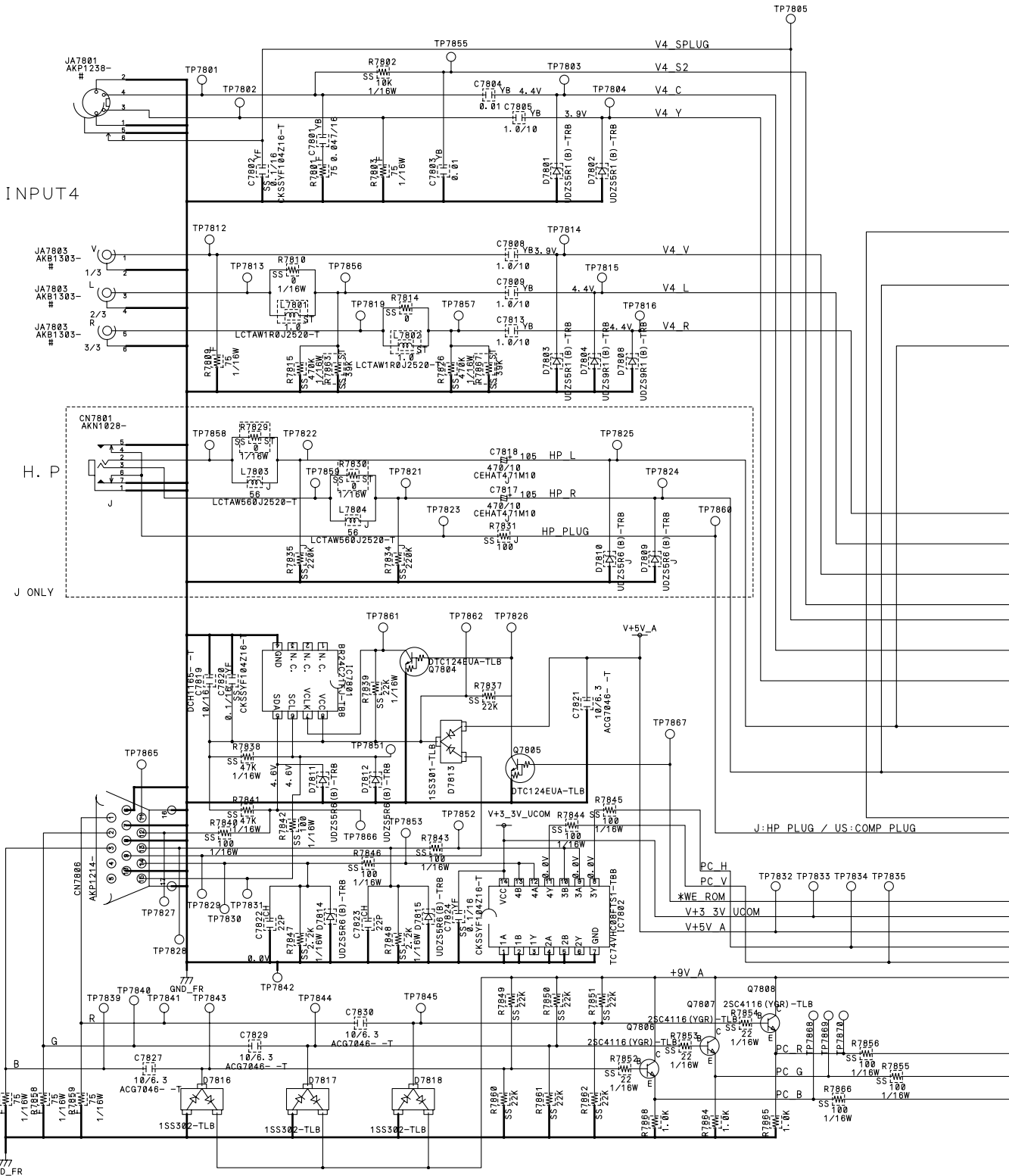
- 1. V+3_3V_STB
- 2. LED_ON
- 3. LED_OFF
- 4. LED_MDM
- 5. V+5_1V_STB
- 6. LED_REC
- 7. KEY_AD1
- 8. KEY_AD2
- 9. GND
- 10. GND
- 11. GND
- 12. GND

		MODEL	PRO-R06U/KUCXJ PDP-R06U/KUCXJ	PDP-R06/JJ
ITEM	USED		AWV2224- (KUE) AWV2226- (KU) VACANT	AWV2228- (J) VACANT
R	8001, 8004-8006, 8011 8017-8025		8004, 8011, 8025	8023, 8024, 8025
C	8001, 8005-8007			
D	8001-8004		8002	
Q	8002-8004, 8007		8007	
CN	8001			
S	8001-8007			8007



3.33 FRONT ASSY

FRONT ASSY



	J	KU Regular	KU Elite
JA7803	AKB1303-	AKB1303-	AKB1304-
JA7801	AKP1238-	AKP1238-	AKP1239-
JA7805	Vacant	AKB1305-	AKB1306-
CN7801	AKN1028-	Vacant	Vacant

	MODEL	PRO-R06U/KUCXJ	PDP-R06U/KUCXJ	PDP-R06/JJ
ITEM	USED	AWV2224- (KUE) VACANT	AWV2226- (KU) VACANT	AWV2228- (J) VACANT
R	7801-7803, 7804, 7805, 7807-7808	7803-7805, 7806, 7808, 7805, 7807, 7810	7803-7805, 7806, 7808, 7805, 7807, 7810	7804-7806, 7811-7813, 7810-7826, 7828-7834, 7805, 7807
C	7801-7805, 7806, 7808, 7810, 7811, 7812-7814, 7815, 7829-7832, 7834, 7835, 7838-7840, 7801-7810	7811, 7810	7811, 7810	7808, 7828, 7830-7840
D		7806, 7810	7806, 7810	7806-7807
Q	7801-7806			7801-7803
JA	7801, 7803-7805			7805
CN	7801, 7803-7805	7801, 7805	7801, 7805	7805
IC	7801, 7802			
L	7801-7804	7801-7804	7801-7804	7801, 7802

PDP-R06U



3.34 POWER SUPPLY UNIT

POWER SUPPLY UNIT

A

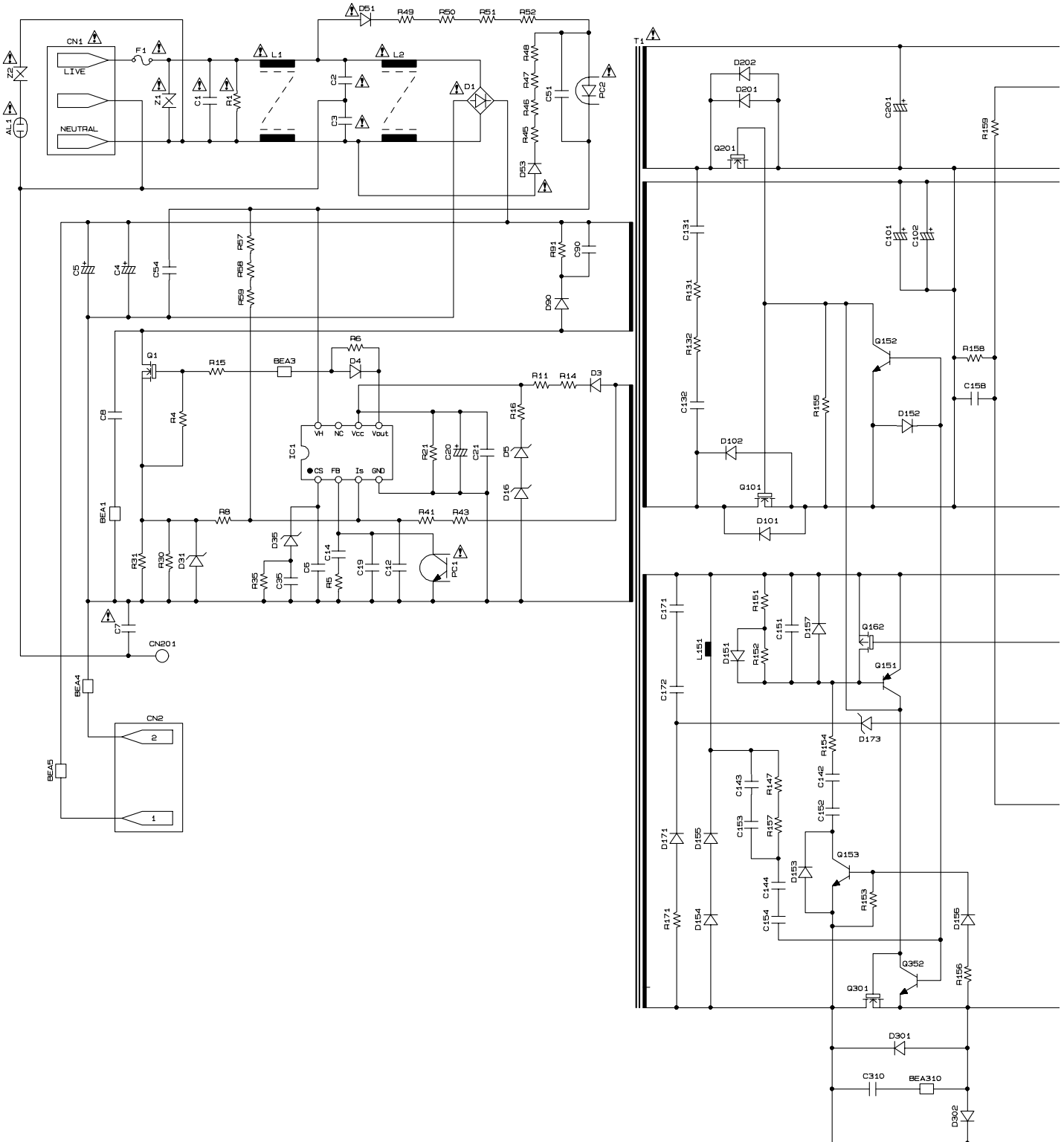
B

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F

SIDE A

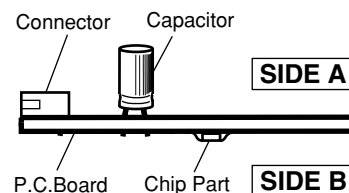
A

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



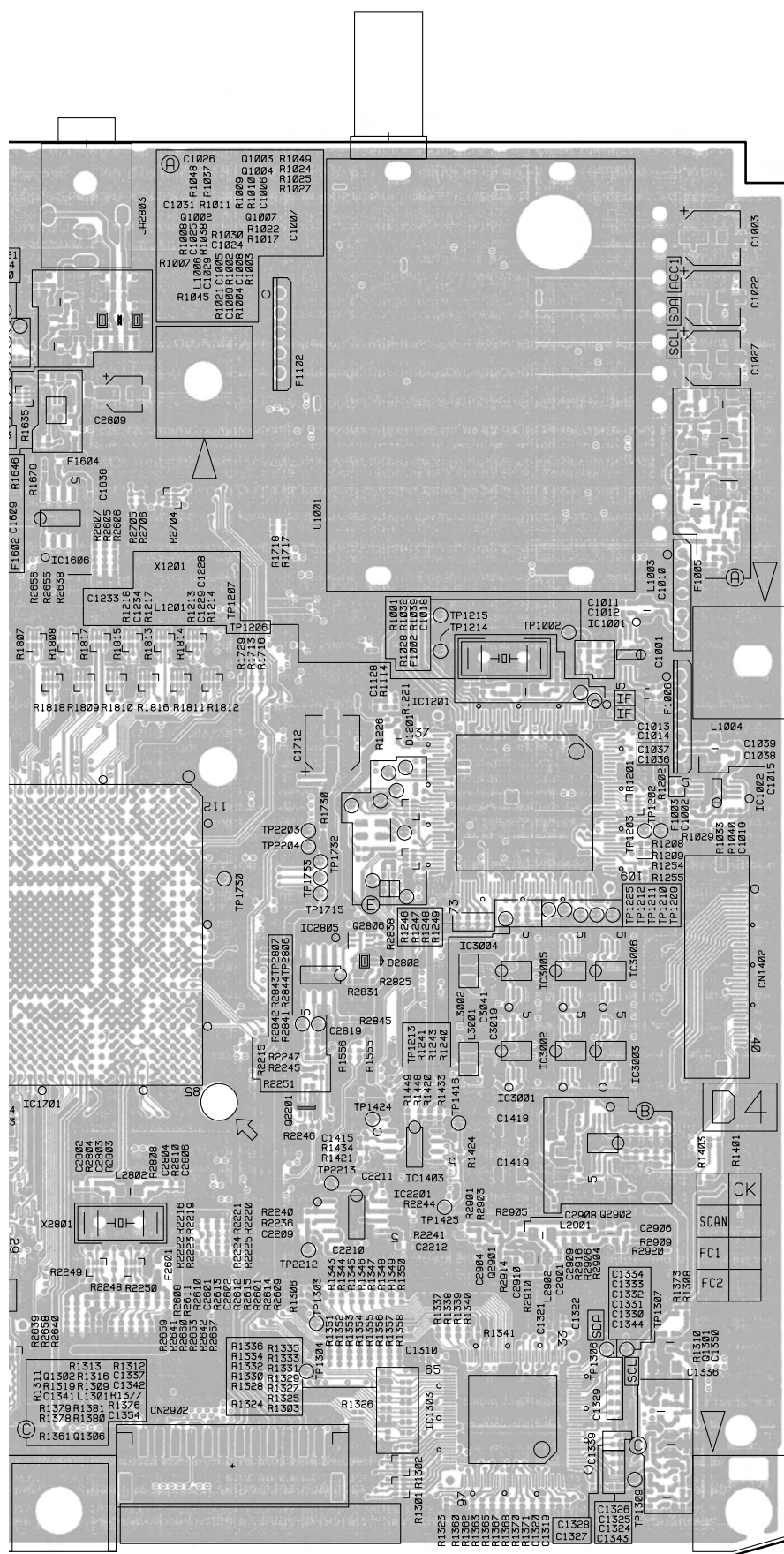
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SIDE B

C

D

E

F

A



C

D

■

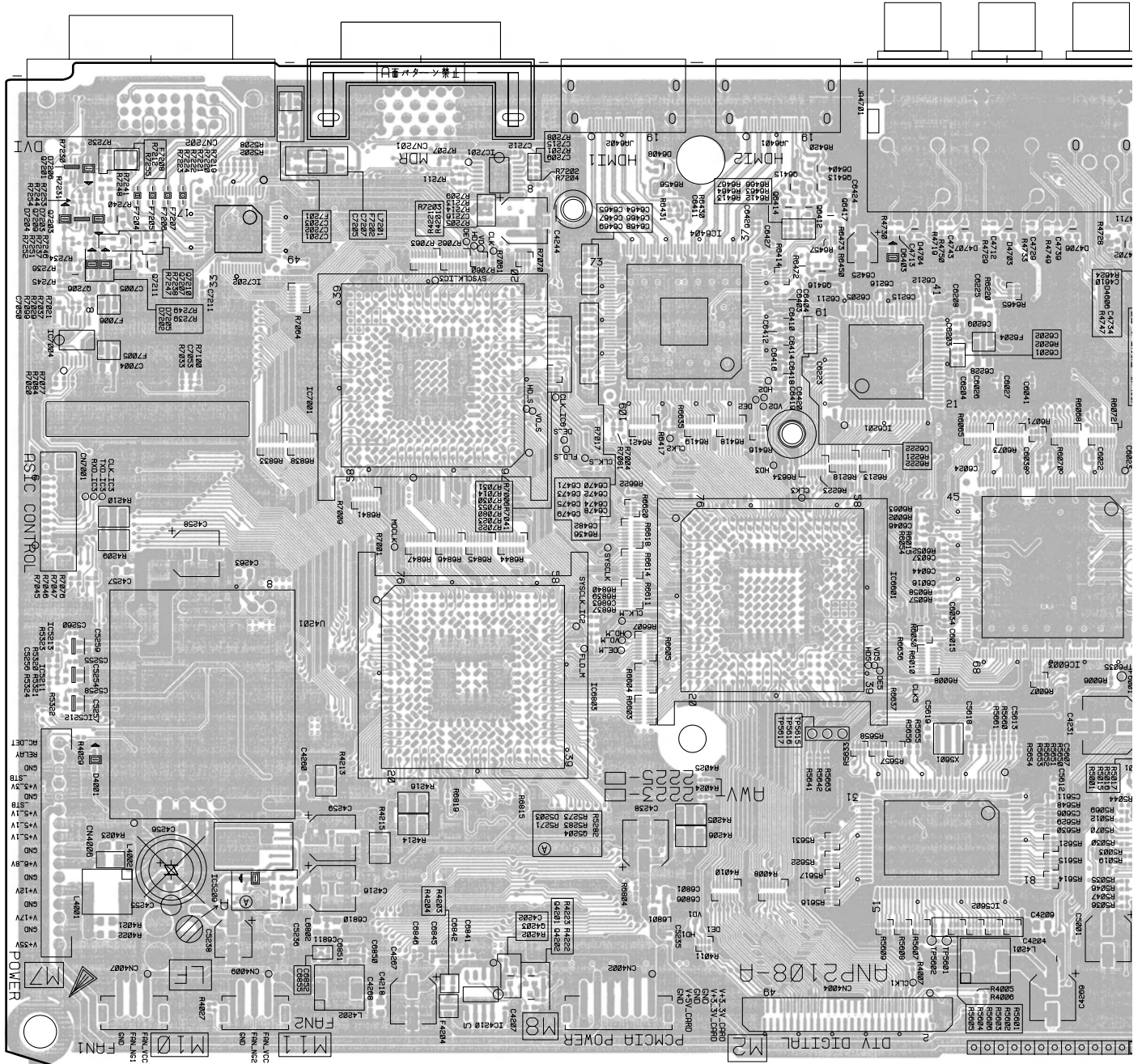
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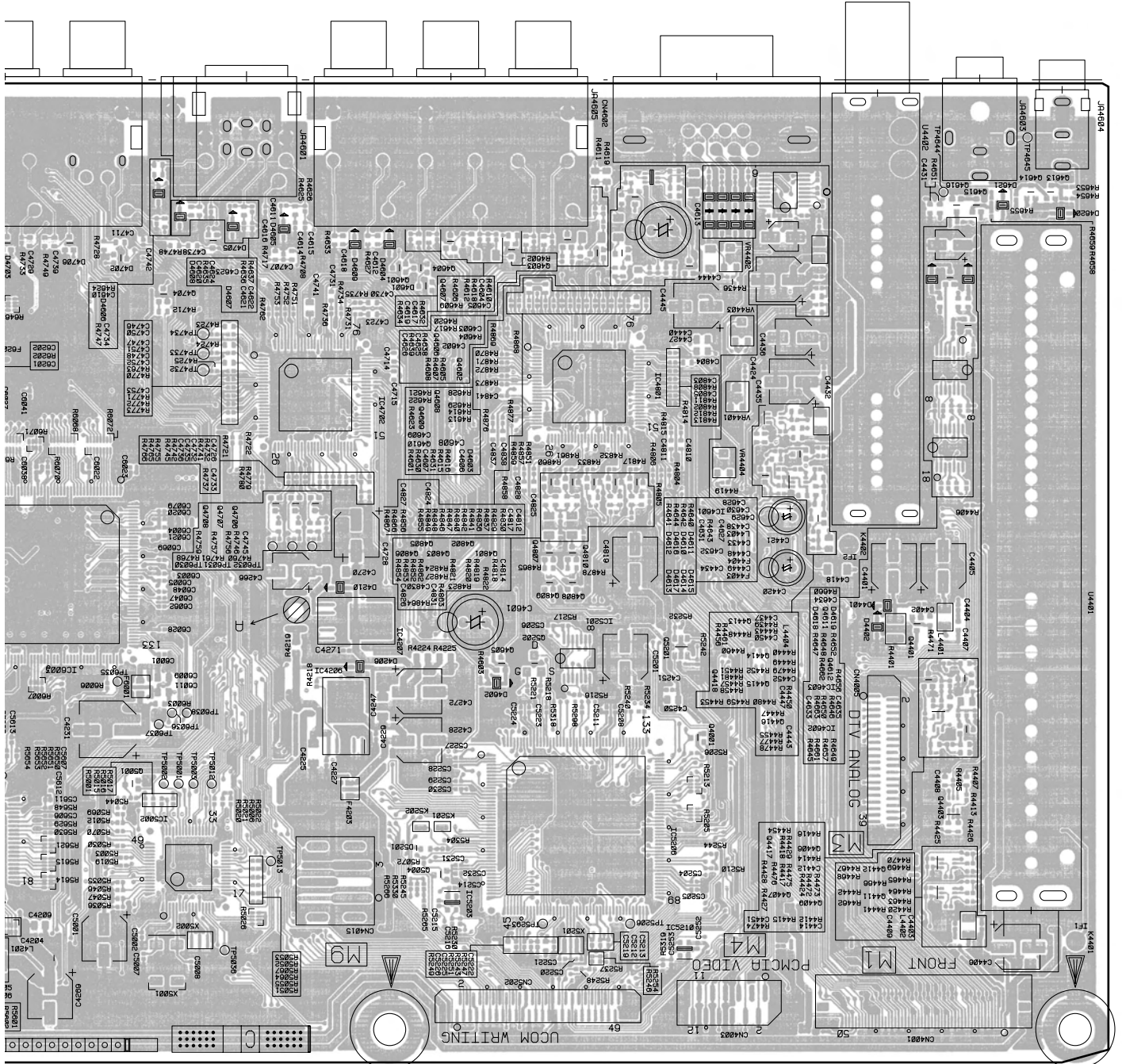
77

4.2 MR MAIN ASSY

SIDE A

MR MAIN ASSY

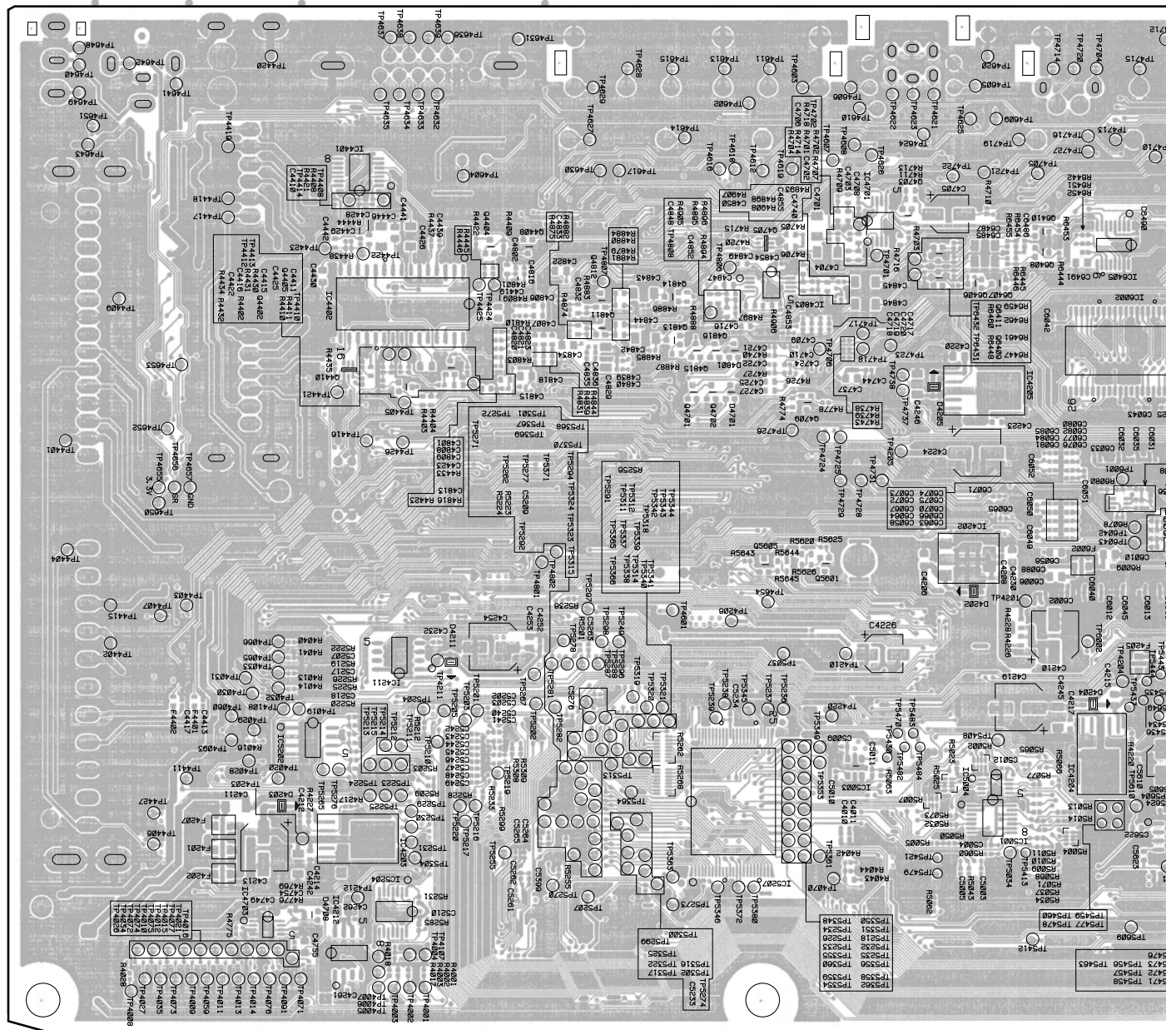


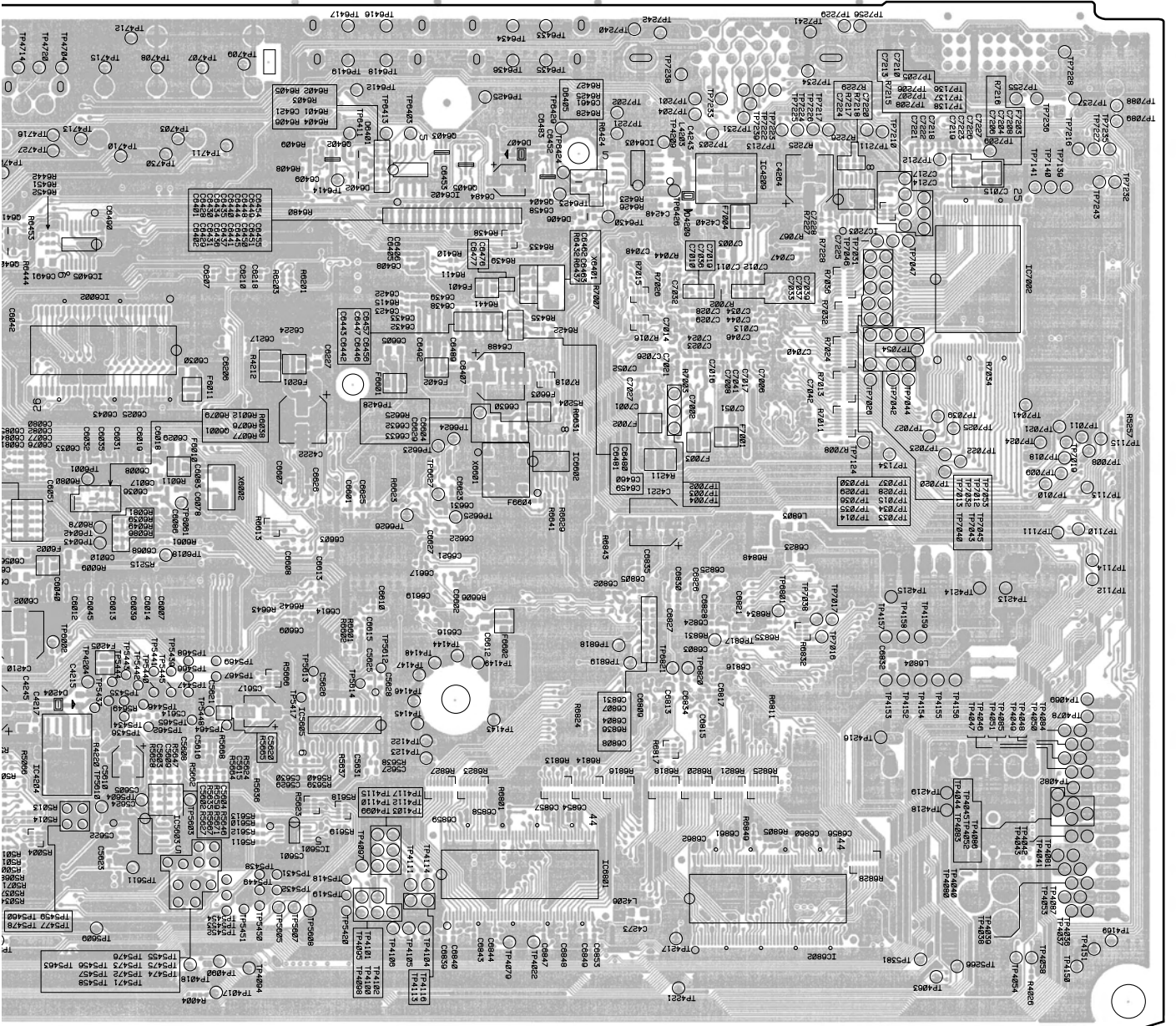


(ANP2108-A)

SIDE B

MR MAIN ASSY



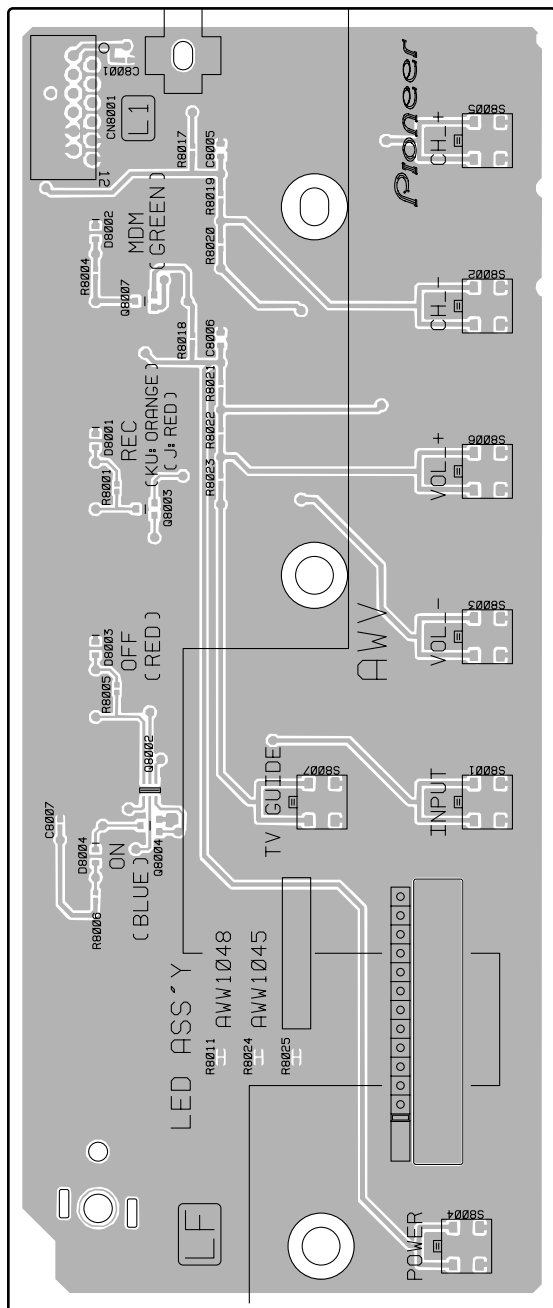


(ANP2108-A)

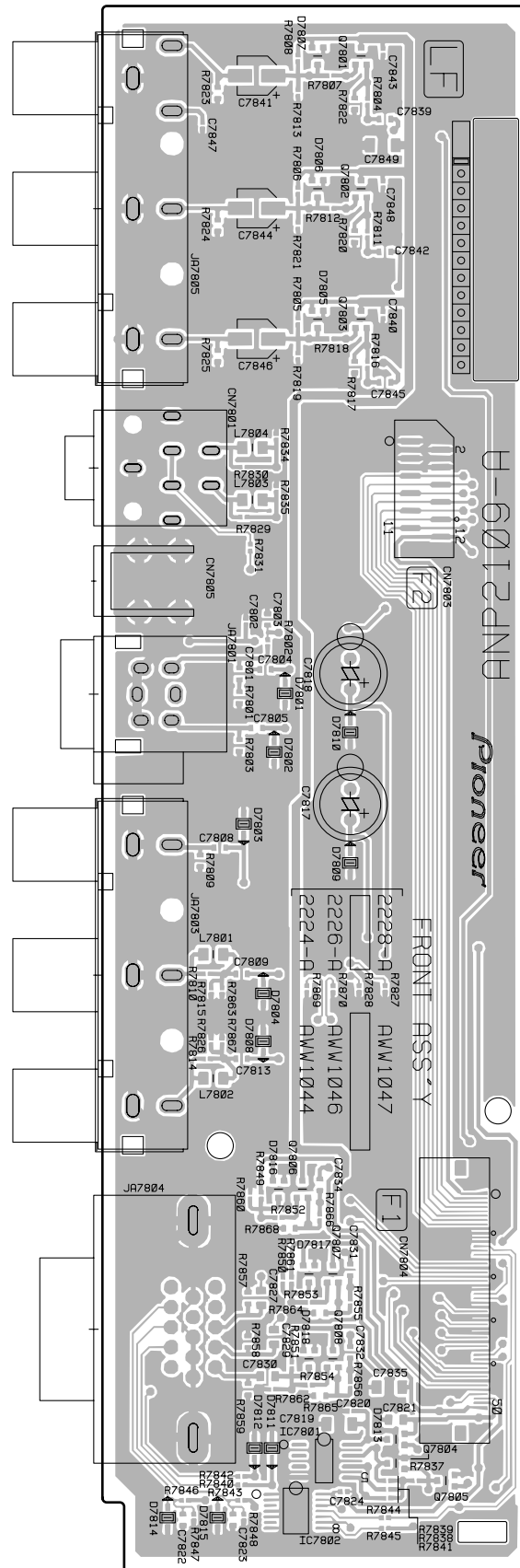
4

SIDE A

LED ASSY



(ANP2109-A)



Service Manual

ORDER NO.
ARP3291

PLASMA DISPLAY

PRO-436PU

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	PRO-436PU		
KUC	○	AC120V	

● **This service manual should be used together with the following manual(s):**

Model No.	Order No.	Remarks
PDP-436PE/WYVI	ARP3271	SAFETY INFORMATION, EXPLODED VIEWS AND PARTS LIST, BLOCK DIAGRAM, PCB PARTS LIST, ADJUSTMENT, IC INFORMATION etc.

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ∇ mark on product are used for disassembly.

● Reference Nos. indicate the pages and Nos. in the service manual for the base model.

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 \rightarrow $56 \times 10^1 \rightarrow$ 561 RD1/4PU $\boxed{5}\boxed{6}\boxed{1}J$

47k \rightarrow $47 \times 10^3 \rightarrow$ 473 RD1/4PU $\boxed{4}\boxed{7}\boxed{3}J$

0.5 \rightarrow R50 RN2H $\boxed{R}\boxed{5}\boxed{0}K$

1 \rightarrow IR0 RS1P $\boxed{I}\boxed{R}\boxed{0}K$

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k \rightarrow $562 \times 10^1 \rightarrow$ 5621 RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}F$

■ CONTRAST TABLE

PRO-436PU/KUC and PDP-436PE/WYVI are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			PDP-436PE WYVI	PRO-436PU KUC	
P17 - 1	NSP	PCB ASSY 43X DRIVE ASSY	AWV2255	AWV2205	
P17 - 4		└ 43 X DRIVE ASSY 43 Y DRIVE ASSY	AWW1074 AWV2256	AWW1012 AWV2206	
P9 - 1	\triangle	PACKING Power Cord	ADG1214	ADG1215	
P9 - 6	NSP	Warranty	ARY1114	ARY1134	
P9 - 7		Ferrite Core	ATX1039	Not used	
P9 - 12		Power Cord Case	AHC1073	Not used	
P9 - 14		Upper Carton	AHD3368	AHD3426	
P11 - 6	NSP	REAR SECTION Name Label (436PE)	AAL2670	Not used	
P11 - 6	NSP	Name Label (436EL)	Not used	AAL2714	
P11 - 8		AC Label PE	AAX3194	Not used	
P13 - 1		FRONT SECTION F. Case Assy (436PE)	AMB2855	Not used	
P13 - 1		F. Case Assy (436EL)	Not used	AMB2871	
P13 - 3		Pioneer Name Plate	AAM1096	Not used	
P13 - 3		Elite Badge	Not used	AAM1102	
P13 - 9		Label (436)	AAX3205	Not used	

■ CONTRAST OF PCB ASSEMBLIES

• 43 X DRIVE ASSY

AWW1012 and AWW1074 are constructed the same except for the following :

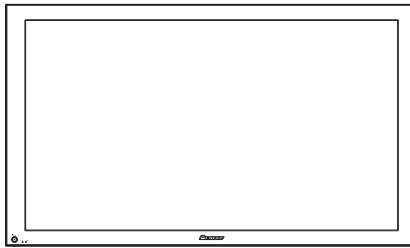
Mark	Symbol and Description	Part No.		Remarks
		AWW1074	AWW1012	
	[43 X RESONANCE BLOCK] IC1101 C1101	AXF1145 ACG1112 (0.22 UF/250V)	AXF1156 ACG1088 (0.1UF/250V)	
	C1112, C1113	ACG1112 (0.22 UF/250V)	Not used	
	C1167, C1168	ACG1129 (3300P/630V)	Not used	
	[43 X SUS BLOCK] C1297, C1298	ACG1129 (3300P/630V)	Not used	

• 43 Y DRIVE ASSY

AWV2206 and AWV2256 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWV2256	AWV2206	
	[43 Y RESONANCE BLOCK] IC2101 C2103	AXF1145 ACG1112 (0.22UF/250V)	AXF1156 ACG1088 (0.1UF/250V)	
	C2107, C2108	ACG1112 (0.22UF/250V)	Not used	
	C2109 - C2112	ACG1129 (3300P/630V)	Not used	
	C2271	ACG1124 (0.1UF/100V)	ACG1118 (0.33UF/100V)	
	C2272	ACG1124 (0.1UF/100V)	Not used	

Service Manual



PDP-506PE

ORDER NO.
ARP3267

PLASMA DISPLAY

PDP-506PE PDP-506PU

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-506PE	WYVI	AC220 - 240V	
PDP-506PU	KUCXC	AC120V	

Note:

Media Receivers up to Generation 5 (G5) cannot be connected with this unit.
Be sure to use a Media Receiver of Generation 6 (G6) (ex.: PDP-R06**, etc.).



For details, refer to "Important Check Points for good servicing".

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.



WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65



NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.

6. Perform the following precautions against unwanted radiation and rise in internal temperature.
 - Always return the internal wiring to the original styling.
 - Attach parts (Gasket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
 - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
 - Make sure that the panel vent does not break. (Check that the cover is attached.)
 - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
 - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

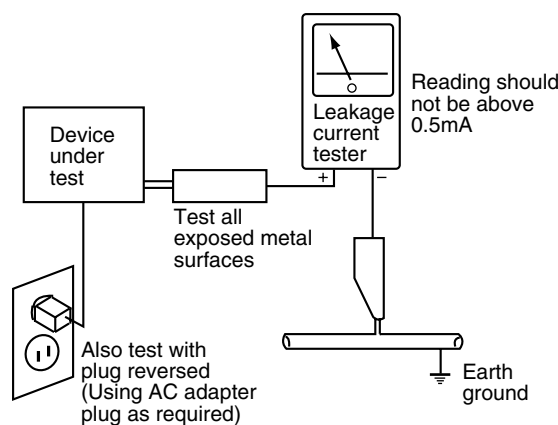
With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of $0.3M\Omega$ and a maximum resistor reading of $5M\Omega$. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).

Turn the AC power switch on.

Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Δ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

A

■Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.

If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

B

1. Power Cord
2. AC Inlet
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

If the procedures described in “7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM” are performed before the power is turned off, the voltage will be discharged in about 30 seconds.

1. POWER SUPPLY Unit.....(205V)
2. 50 X DRIVE Assy (–180V to 205V)
3. 50 Y DRIVE Assy (500V)
4. 50 SCAN A Assy (500V)
5. 50 SCAN B Assy (500V)
6. SUS CLAMP 1 Assy(–180V to 205V)
7. SUS CLAMP 2 Assy(–180V to 205V)

C

■ : Part is Charged Section.

■ : Part is the High Voltage Generating Points other than the Charged Section.

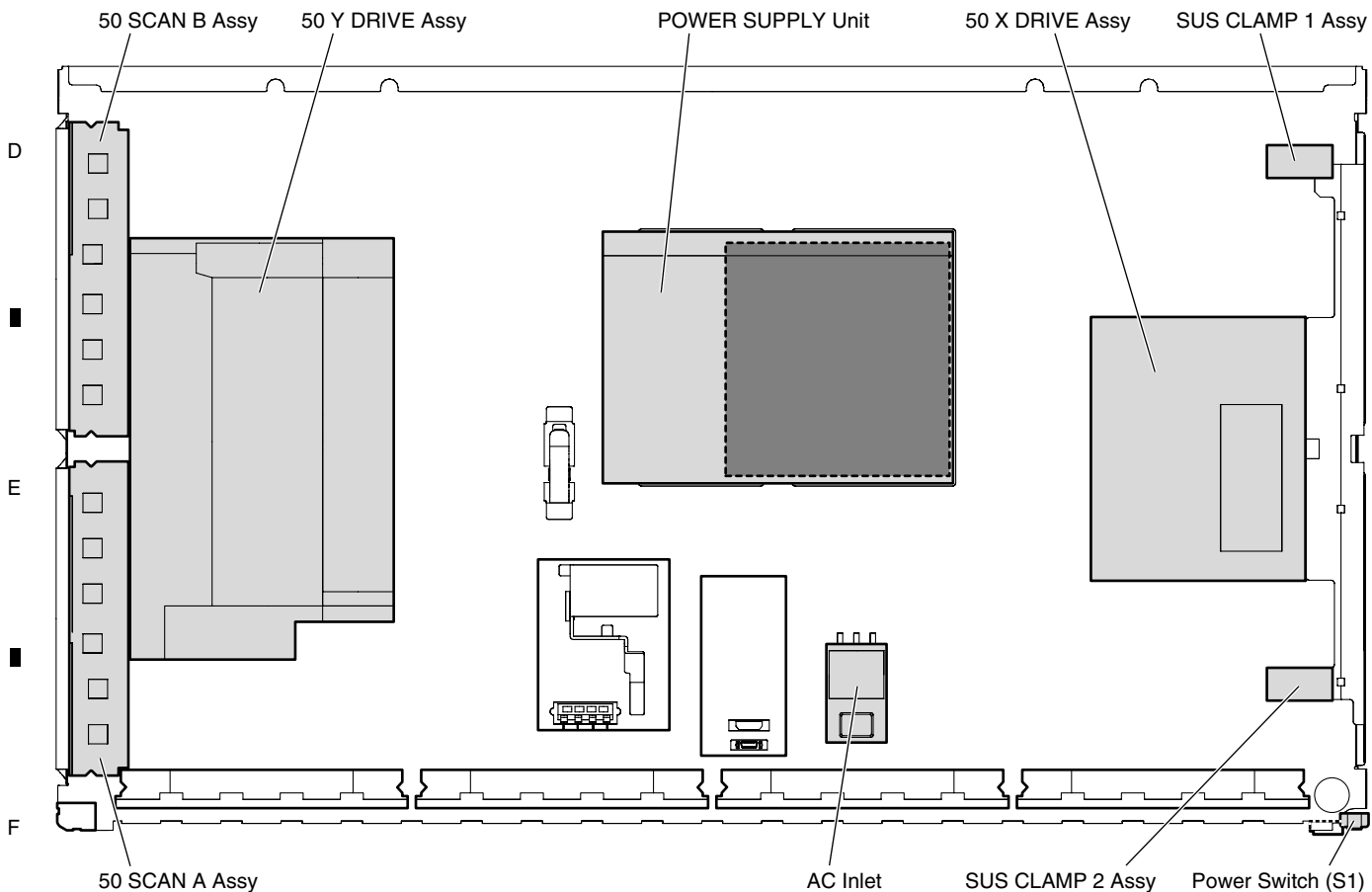


Fig.1 Charged Section and High Voltage Generating Point (Rear View)

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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Item	50" Plasma Display, Model: PDP-506PE	50" Plasma Display, Model: PDP-506PU
Number of Pixels	1280 × 768 pixels	1280 × 768 pixels
Audio Amplifier	13 W + 13 W (1 kHz, 10 %, 8Ω)	13 W + 13 W (1 kHz, 10 %, 8Ω)
Surround System	SRS/FOCUS/TruBass	SRS/FOCUS/TruBass
Power Requirement	220 - 240 V AC, 50/60 Hz, 344 W (0.4 W Standby)	120 V AC, 60 Hz, 355 W (0.2 W Standby)
Dimensions	1224 (W) × 717 (H) × 92 (D) mm	1224 (W) × 717 (H) × 92 (D) mm (48 3/16 (W) × 28 1/4 (H) × 3 5/8 (D) inches)
Weight	31.8 kg (70.1 lbs.)	31.8 kg (70.1 lbs.)

• Design and specifications are subject to change without notice.

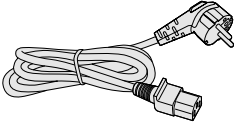
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Accessories

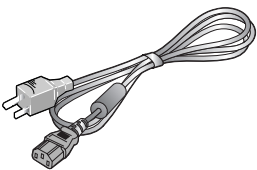
Power cord (2 m)

For PDP-506PE



(ADG1214)

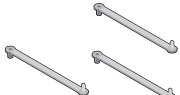
For PDP-506PU



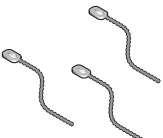
(ADG1215)

Only the power cord that is appropriate in your country or region is supplied.

Binder Assy (AEC1908)




Speed clamp x 3

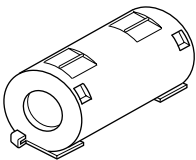


Bead band x 3

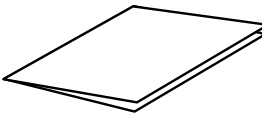
Ferrite Core (ATX1039)(PDP-506PE only)



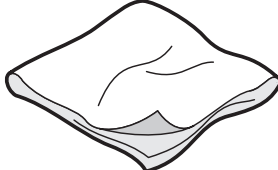
Cable tie



Ferrite core



Warranty card



Cleaning cloth
(AED1285)

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PDP-506PE

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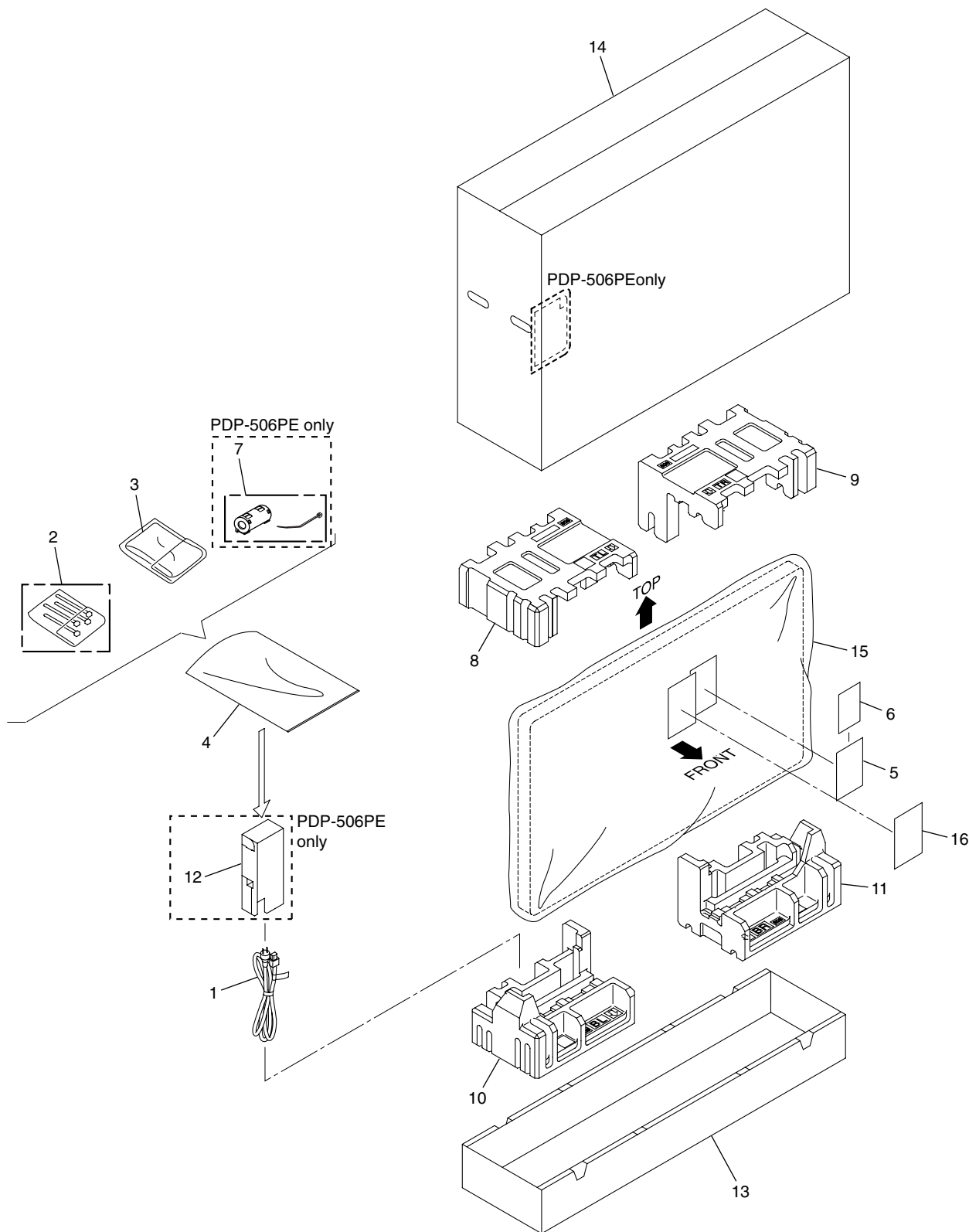
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2. EXPLODED VIEWS AND PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screws adjacent to ▼ mark on product are used for disassembly.
 - For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
⚠	1	Power Cord	See Contrast table (2)
	2	Binder Assy	AEC1908
	3	Cleaning Cloth	AED1285
	4	Polyethylene Bag S	See Contrast table (2)
NSP	5	Catalogue Bag	See Contrast table (2)
NSP	6	Warranty card	See Contrast table (2)
⚠	7	Ferrite Core	See Contrast table (2)
	8	Pad (50T-L)	See Contrast table (2)
	9	Pad (50T-R)	See Contrast table (2)
	10	Pad (50B-L)	See Contrast table (2)
	11	Pad (50B-R)	See Contrast table (2)
	12	Power Cord Case	See Contrast table (2)
	13	Under Carton	See Contrast table (2)
	14	Upper Carton	See Contrast table (2)
	15	Mirror Mat	See Contrast table (2)
	16	Caution Card	See Contrast table (2)

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
⚠	1	Power Cord	ADG1214	ADG1215
	4	Polyethylene Bag S	AHG1338	AHG1348
NSP	5	Catalogue Bag	AHG1340	AHG1347
NSP	6	Warranty Card	ARY1114	ARY1145
⚠	7	Ferrite Core	ATX1039	Not used
	8	Pad (50T-L)	AHA2427	AHA2459
	9	Pad (50T-R)	AHA2428	AHA2460
	10	Pad (50B-L)	AHA2429	AHA2461
	11	Pad (50B-R)	AHA2430	AHA2462
	12	Power Cord Case	AHC1073	Not used
	13	Under Carton (50)	AHD3344	Not used
	13	Under Carton (506PU)	Not used	AHD3379
	14	Upper Carton (506PE)	AHD3345	Not used
	14	Upper Carton (506PU)	Not used	AHD3383
	15	Mirror Mat	AHG1284	AHG1352
	16	Caution Card	ARM1232	ARM1239

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2.2 REAR SECTION

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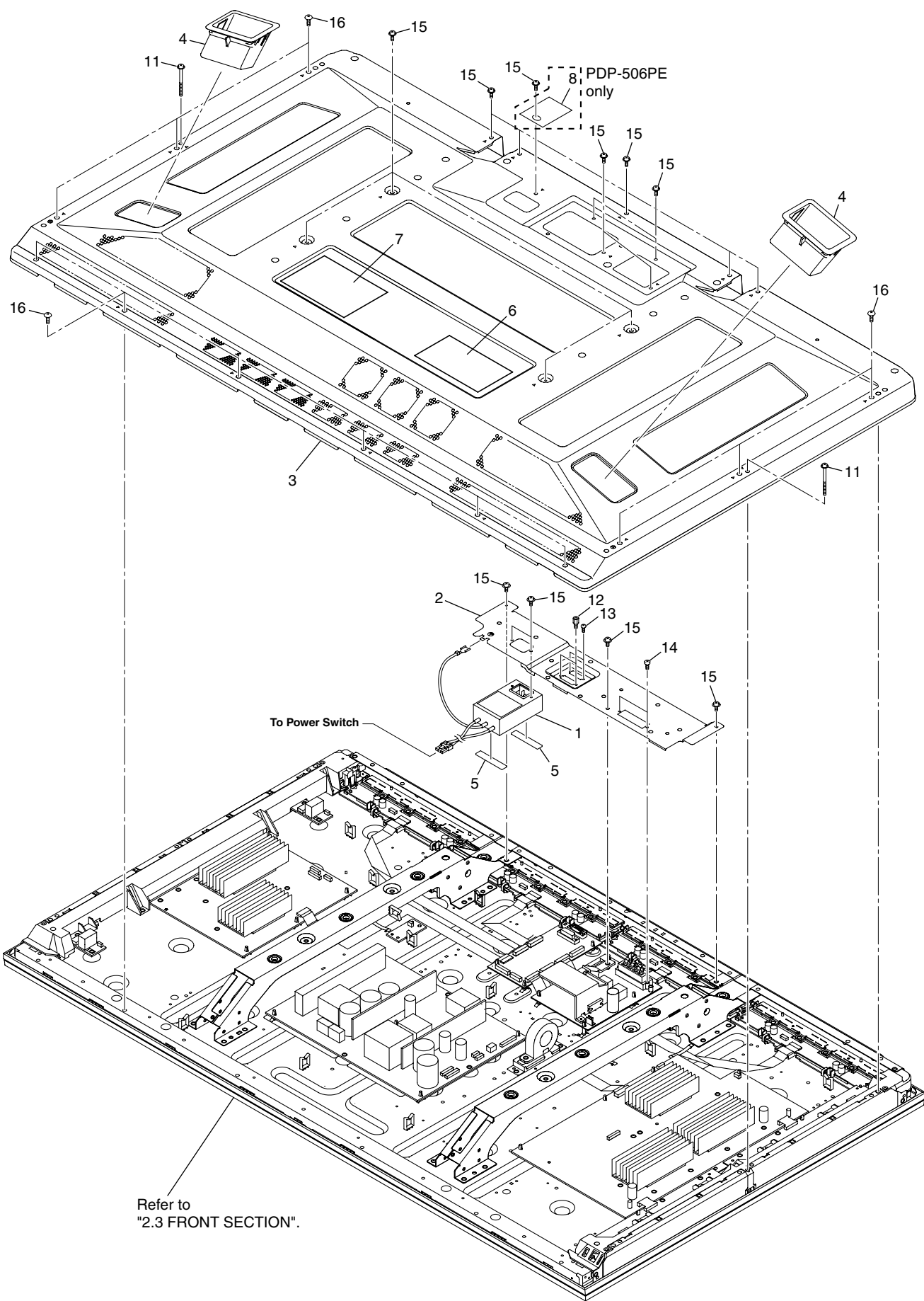
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(1) REAR SECTION PARTS LIST

Mark	No.	Description	Part No.
⚠	1	AC Inlet	AKP1274
	2	Control Plate	AND1185
	3	Rear Case (506)	ANE1639
	4	Inner Grip Assy	AMR3434
	5	AC Cushion	AEC2035
NSP	6	Model Label	See Contrast table (2)
	7	Caution Label	See Contrast table (2)
	8	AC Label PE	See Contrast table (2)
	9	•••••	
	10	•••••	
	11	Screw (3 x 40P)	ABA1332
	12	Hexagon Head Screw	BBA1051
	13	Screw	PMZ26P060FTB
	14	Screw	BPZ30P080FTB
	15	Screw	AMZ30P060FTB
	16	Screw	TBZ40P080FTB

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
NSP	6	Model Label (506PE)	AAL2661	Not used
NSP	6	Model Label (506PU)	Not used	AAL2679
	7	Caution Label	AAX3117	AAX3075
	8	AC Label PE	AAX3194	Not used

1 2 3 4

2.3 FRONT SECTION

A

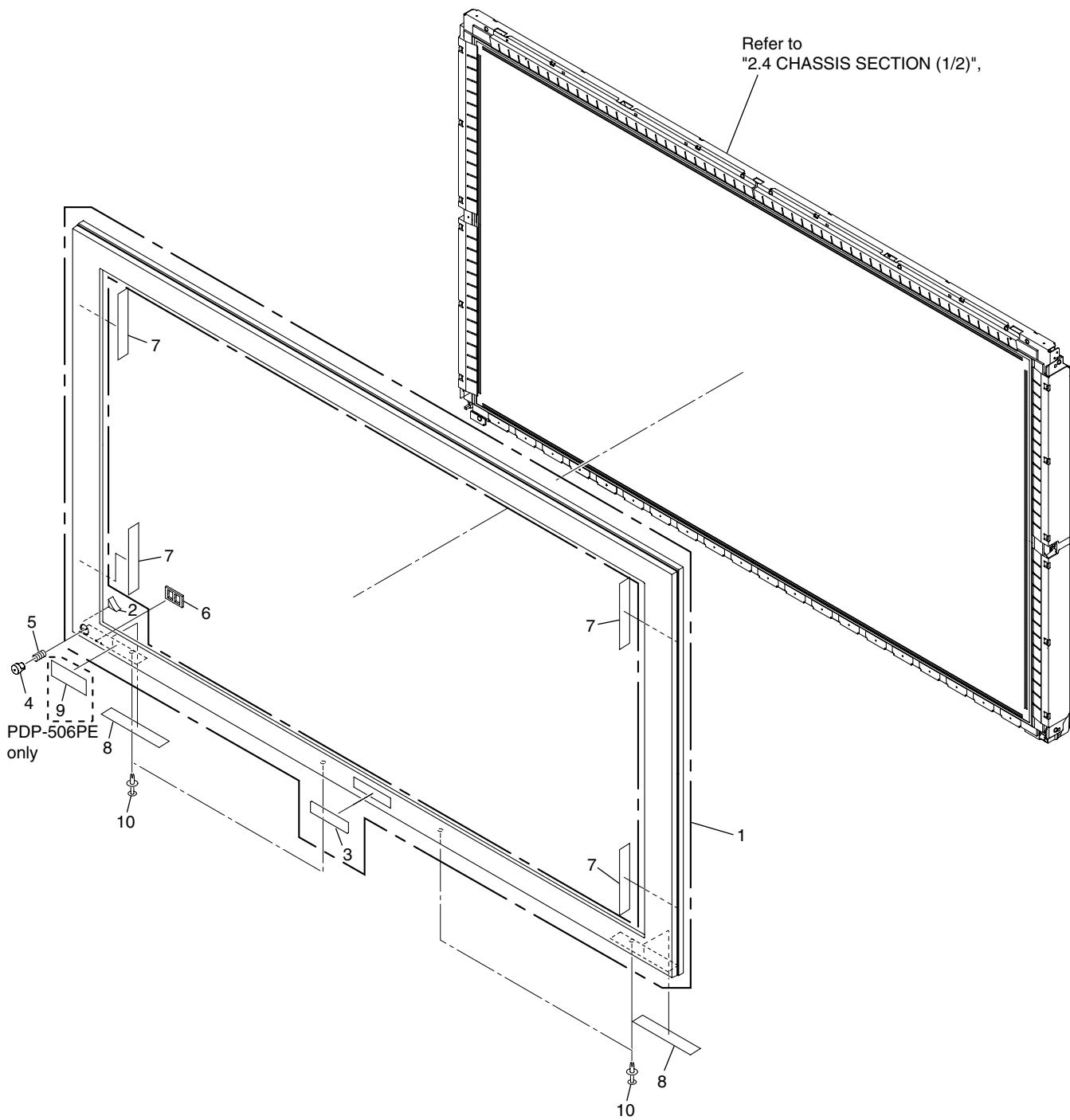
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(1) FRONT SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Front Case Assy (506PE)	AMB2861
2	Corner Cushion	AEB1416
3	Pioneer Name Plate	AAM1098
4	Power Button	AAD4133
5	Coil Spring	ABH1120
6	Blind Cushion	AEB1415
7	Insulation Sheet A	AED1283
8	Insulation Sheet B	AED1284
9	Power Display Label (506)	See Contrast table (2)
10	Screw Rivet	AEC1877

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
	9	Power Display Label (506)	AAX3217	Not used

1 2 3 4

2.4 CHASSIS SECTION (1/2)

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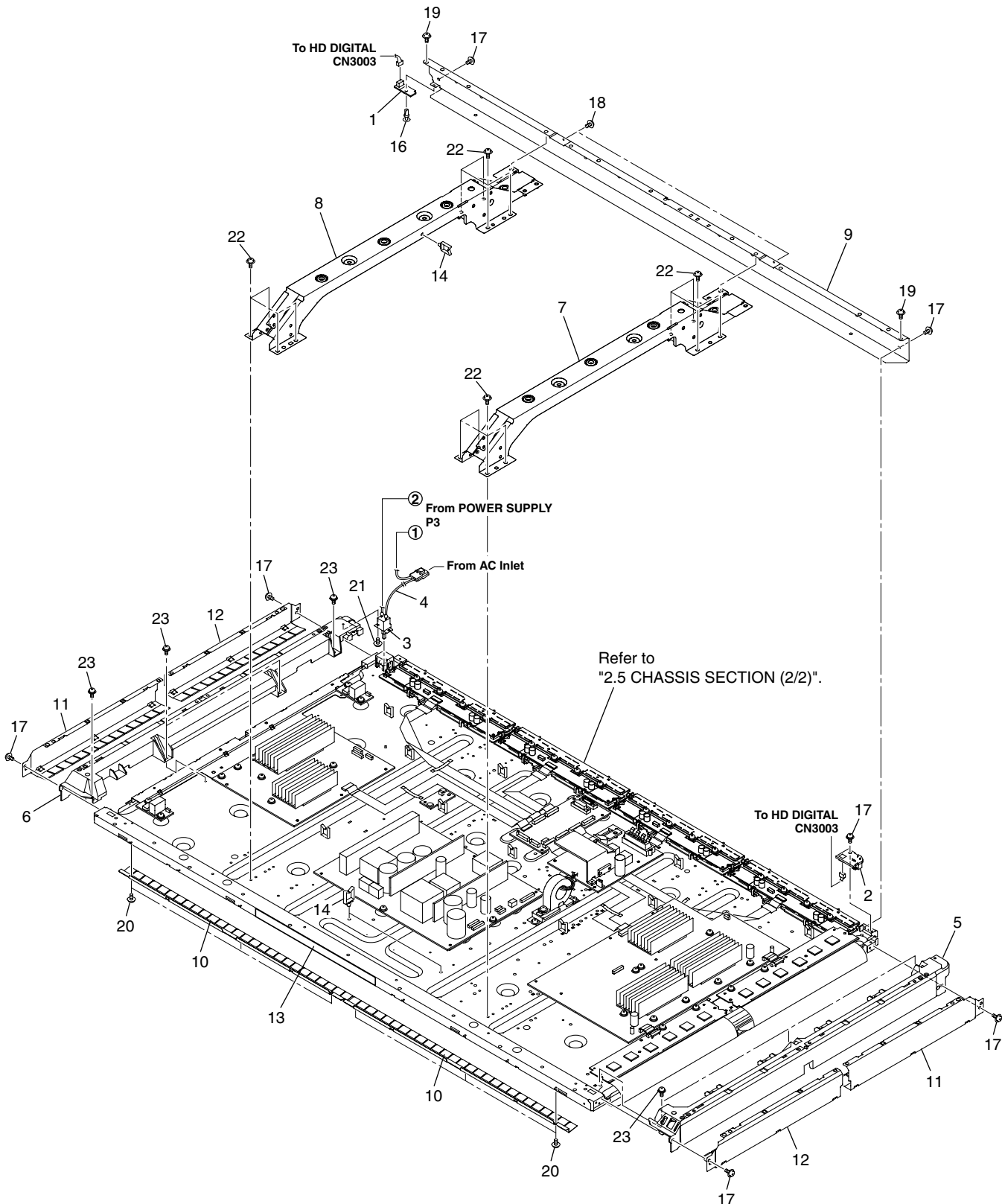
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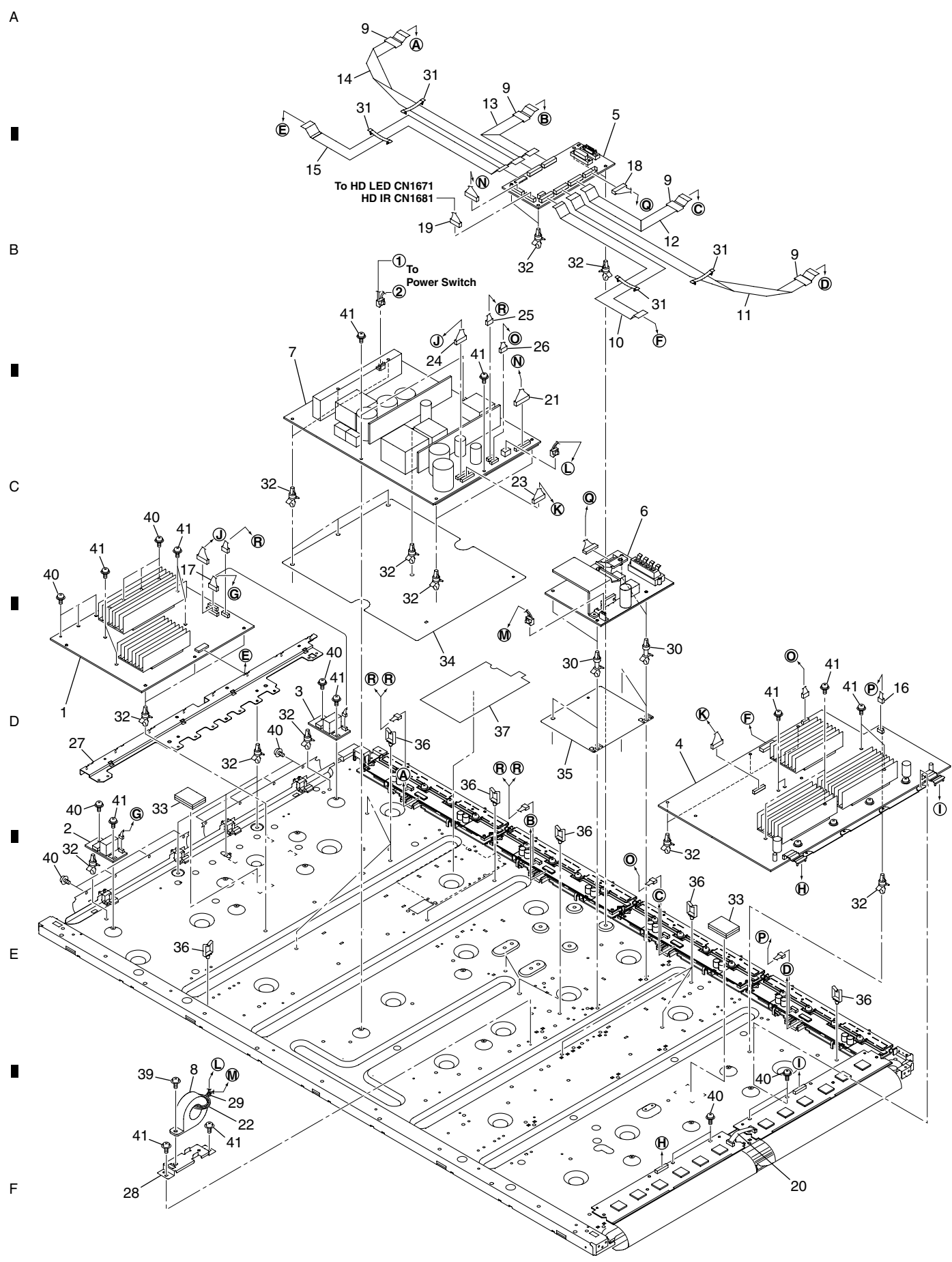
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CHASSIS SECTION (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	HD LED Assy	AWW1029
	2	HD IR Assy	AWW1030
⚠	3	Power Switch (S1)	ASG1092
	4	Housing Wire (50)(J103)	ADX3112
	5	Front Chassis VL (50)	AMA1014
	6	Front Chassis VR (50)	AMA1015
	7	Sub Frame L Assy (506)	ANA1860
	8	Sub Frame R Assy (506)	ANA1861
	9	Front Chassis H Assy (50)	ANA1883
	10	Panel Holder H (50)	ANG2769
	11	Panel Holder V1 (50)	ANG2770
	12	Panel Holder V2 (50)	ANG2771
	13	Cushion	AEB1424
	14	Wire Saddle	AEC1745
	15	•••••	
	16	Nyron Rivet	AEC1671
	17	Screw	ABZ30P080FTC
	18	Screw	AMZ30P060FTB
	19	Screw	APZ30P080FTB
	20	Screw	BBZ30P060FTC
	21	Screw	BPZ30P080FTB
	22	Screw	TBZ40P080FTB
	23	Screw	VBB30P080FNI

2.5 CHASSIS SECTION (2/2)



(1) CHASSIS SECTION (2/2) PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	50 X DRIVE Assy	See Contrast table (2)	21	14P Housing Wire (J104)	ADX3158
2	SUS CLAMP 1 Assy	AWW1022	22	3P Housing Wire (J105)	ADX3159
3	SUS CLAMP 2 Assy	AWW1023	23	9P Housing Wire (J101)	ADX3186
4	50 Y DRIVE Assy	See Contrast table (2)	24	8P Housing Wire (J102)	ADX3187
5	HD DIGITAL Assy	AWW1028	25	5P Housing Wire (J106)	ADX3188
6	HD AUDIO Assy	AWV2203	26	6P Housing Wire (J107)	ADX3189
7	POWER SUPPLY Unit	AXY1112	27	Conductive Plate XA	ANG2776
8	Ring Core with Case	ATX1042	28	FC Stay	ANG2815
9	Ferrite Core	ATX1048	29	Binder	AEC-093
10	Flexible Cable (J201)	ADD1293	NSP 30	PCB Spacer	AEC1188
11	Flexible Cable (J202)	ADD1294	31	Flat Clamp	AEC1879
12	Flexible Cable (J203)	ADD1295	32	PCB Spacer	AEC1941
13	Flexible Cable (J204)	ADD1296	33	Drive Silicone Sheet	AEH1095
14	Flexible Cable (J205)	ADD1297	34	Power Supply Insulation Sheet	AMR3447
15	Flexible Cable (J206)	ADD1298	35	Audio Insulation Sheet	AMR3469
16	4P Housing Wire (J108)	ADX3117	36	Wire Saddle	AEC1745
17	6P Housing Wire (J109)	See Contrast table (2)	NSP 37	Address Sheet	AMR3491
18	12P Housing Wire (J110)	See Contrast table (2)	38	•••••	
19	6P Housing Wire (J111)	ADX3120	39	Screw	ABA1324
20	3P Housing Wire (J113)	See Contrast table (2)	40	Screw	PMB30P060FTC
			41	Screw	VBB30P080FNI

(2) CONTRAST TABLE

PDP-506PE/WYVI and PDP-506PU/KUCXC are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-506PE/WYVI	PDP-506PU/KUCXC
	1	50 X DRIVE Assy	AWW1075	AWW1020 or AWW1075
	4	50 Y DRIVE Assy	AWV2258	AWV2210 or AWV2258
	17	6P Housing Wire (J109)	ADX3118	ADX3132
	18	12P Housing Wire (J110)	ADX3119	ADX3133
	20	3P Housing Wire (J113)	ADX3122	ADX3136

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2.6 PDP SERVICE ASSY 506P (AWU1134)

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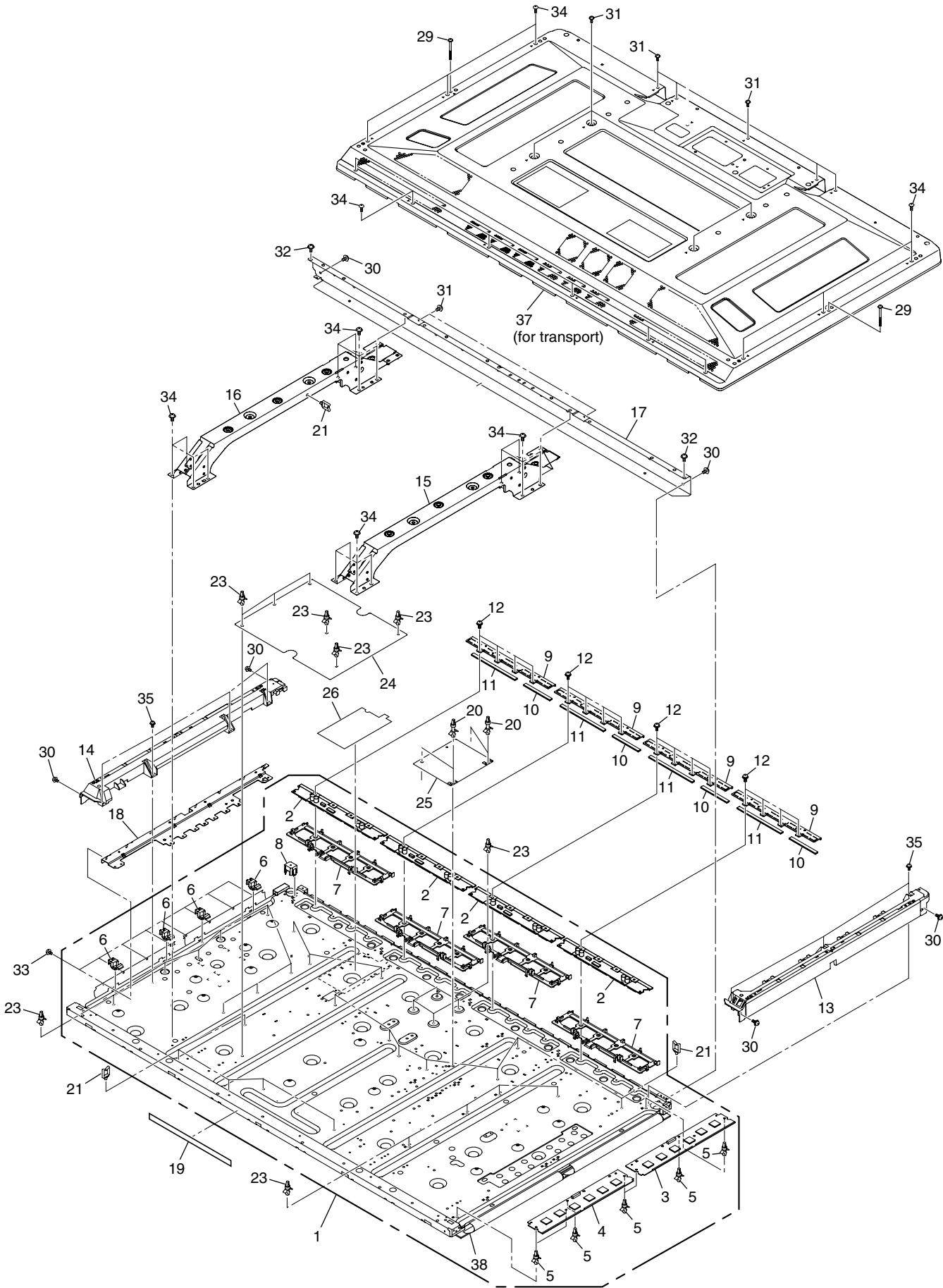
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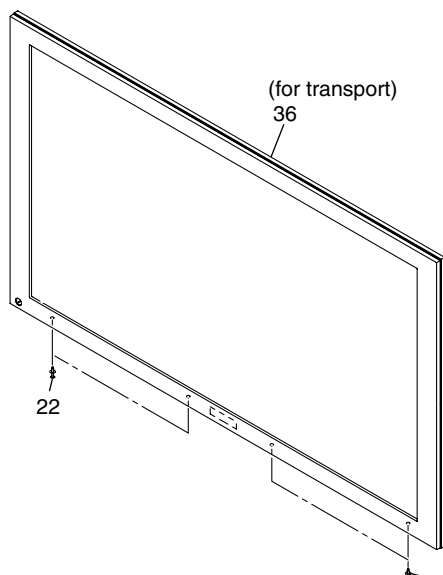
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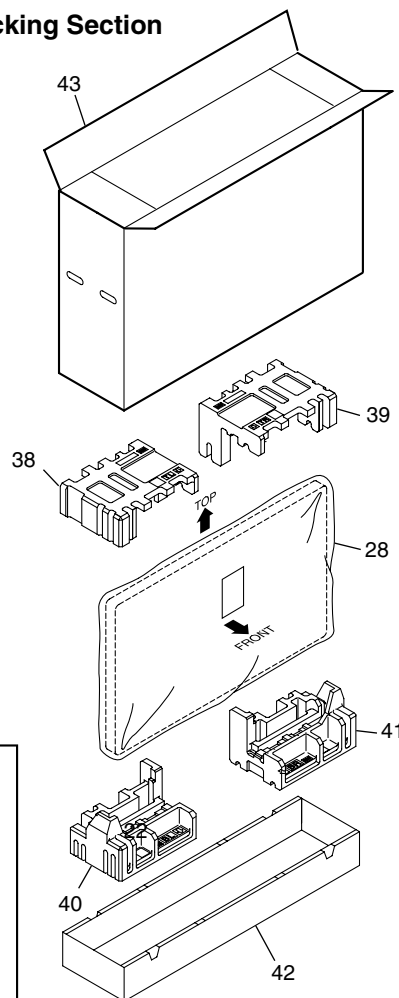


PDP-506PE

- **Front Section**



- **Packing Section**



Note when replacing with the PDP Service Assy 506P

The Power Switch (S1), HD LED Assy, and HD IR Assy are not included in the PDP Service Assy 506P. Before replacement with the PDP Service Assy 506P, the following components of the Service Assy must be temporarily detached to attach the above-mentioned parts (parts from the original unit or newly purchased):

- Front Chassis H Assy (50) (ANA1883)
- Front Chassis VL (50) (AMA1014)
- Front Chassis VR (50) (AMA1015)

PDP SERVICE ASSY 506P (AWU1134) PARTS LIST

Mark No.	Description	Part No.
NSP 1	Panel Chassis (506) Assy	AWU1143
NSP 2	50 ADDRESS Assy	AWV2208
NSP 3	50 SCAN A Assy	AWW1026
NSP 4	50 SCAN B Assy	AWW1027
5	PCB Spacer	AEC1944
6	Conductive Plate Holder	AMR3446
7	ADDRESS Holder Assy (50)	AMR3454
8	Tube Cover	AMR3445
9	Address Heatsink (50)	ANH1635
10	Address Silicone A	AEH1093
11	Address Silicone B	AEH1094
12	Screw	BBB30P120FNI
13	Front Chassis VL (50)	AMA1014
14	Front Chassis VR (50)	AMA1015
15	Sub Frame L Assy (506)	ANA1860
16	Sub Frame R Assy (506)	ANA1861
17	Front Chassis H Assy (50)	ANA1883
18	Conductive Plate XA	ANG2776
19	Cushion	AEB1424
NSP 20	PCB Spacer	AEC1188
21	Wire Saddle	AEC1745
22	Screw Rivet	AEC1877

Mark	No.	Description	Part No.
	23	PCB Spacer	AEC1941
	24	Power Supply Insulation Sheet	AMR3447
	25	Audio Insulation Sheet	AMR3469
NSP	26	Address Sheet	AMR3491
NSP	27	Chassis Assy (50)	ANA1830
	28	Protect Sheet	AHG1331
	29	Screw (3 x 40P)	ABA1332
	30	Screw	ABZ30P080FTC
	31	Screw	AMZ30P060FTB
	32	Screw	APZ30P080FTB
	33	Screw	PMB30P060FTC
	34	Screw	TBZ40P080FTB
	35	Screw	VBB30P080FNI
NSP	36	Front Case Assy (506 service) (for transport)	AMB2889
NSP	37	Rear Case (506) (for transport)	ANE1639
	38	Pad (50T-L)	AHA2427
	39	Pad (50T-R)	AHA2428
	40	Pad (50B-L)	AHA2429
	41	Pad (50B-R)	AHA2430
	42	Under Carton	AHA3344
	43	Upper Carton (506 S.V.C)	AHA3430

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM

A

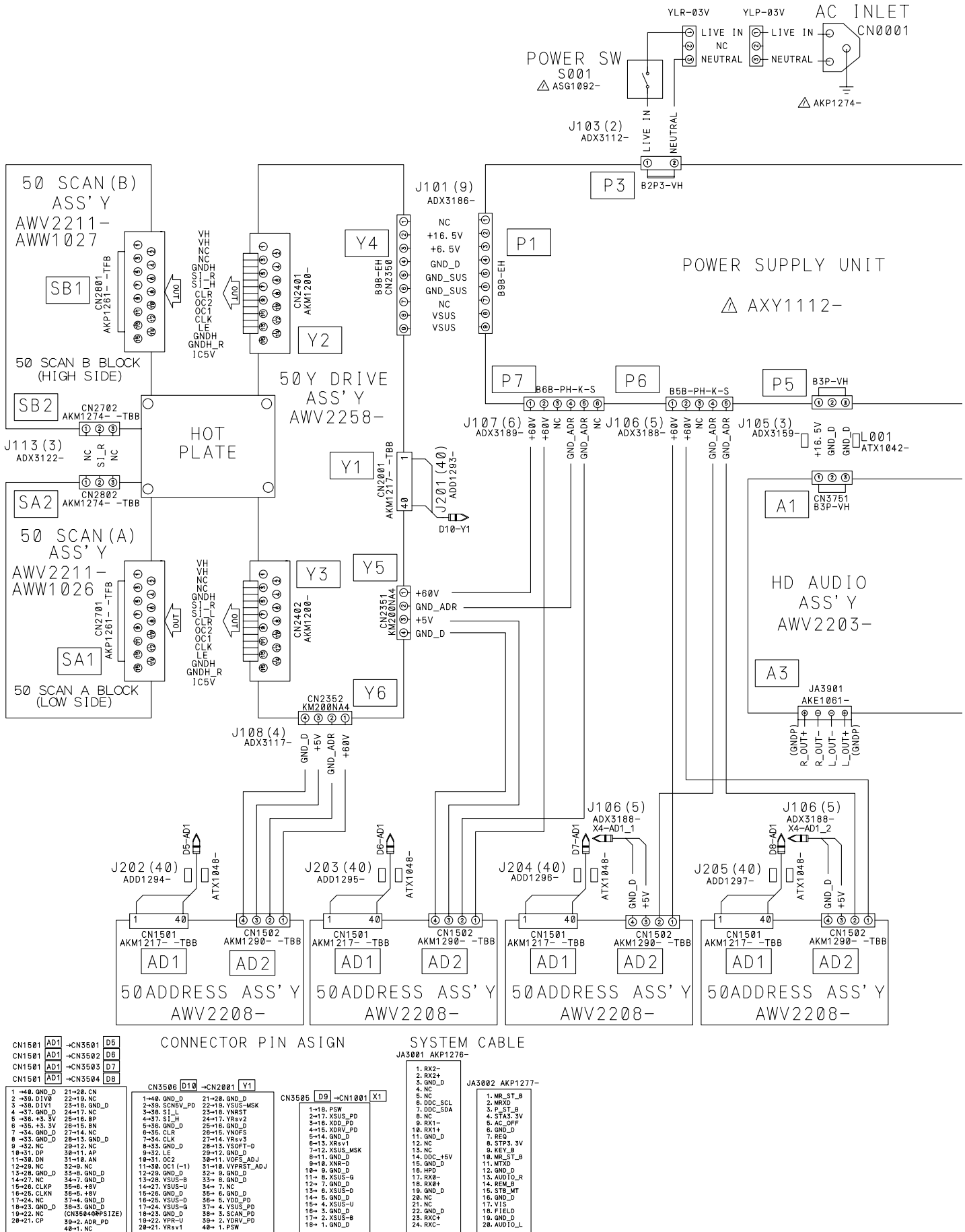
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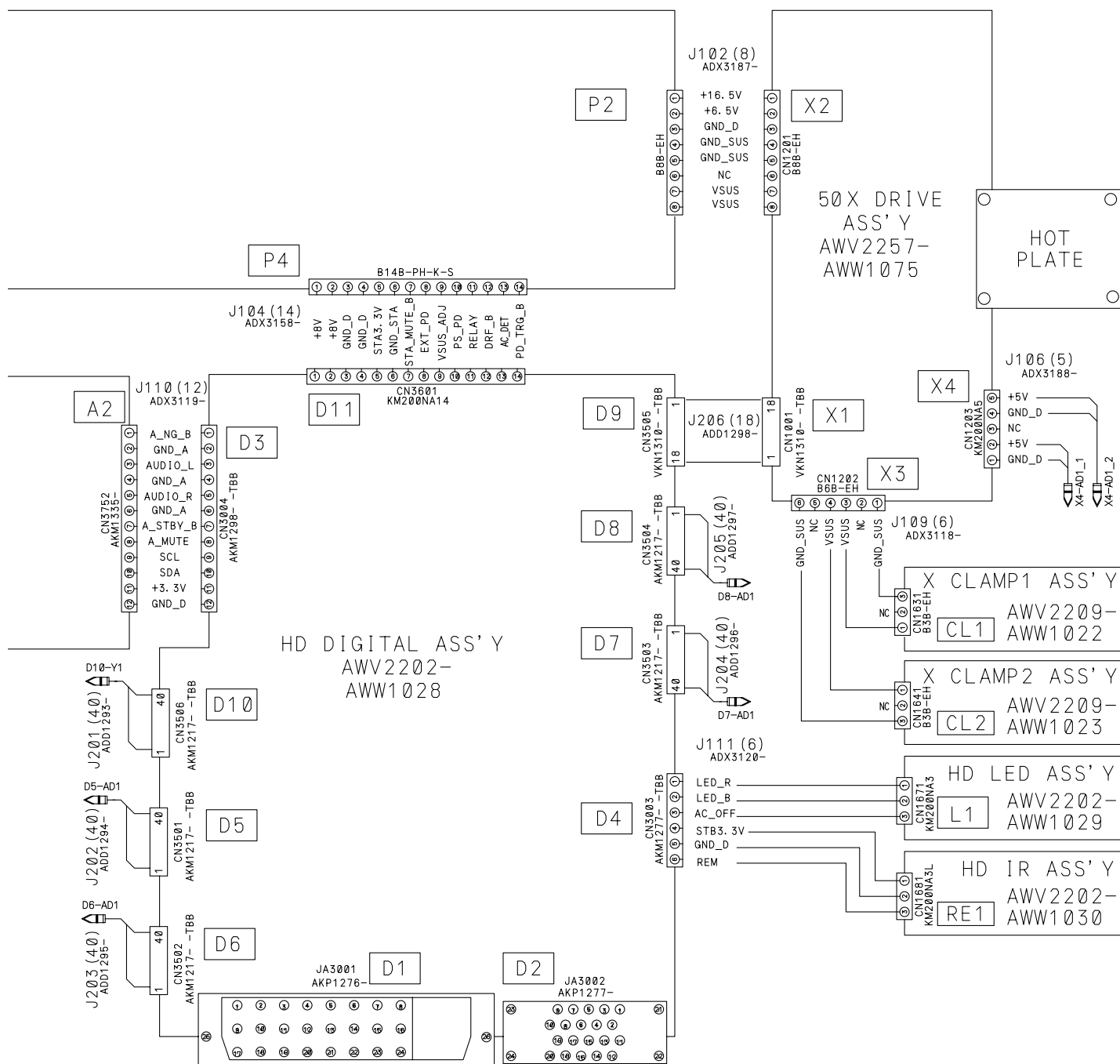
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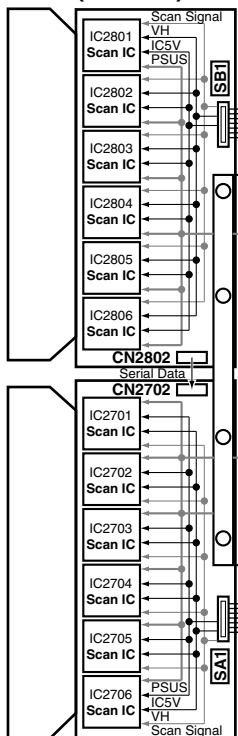
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.



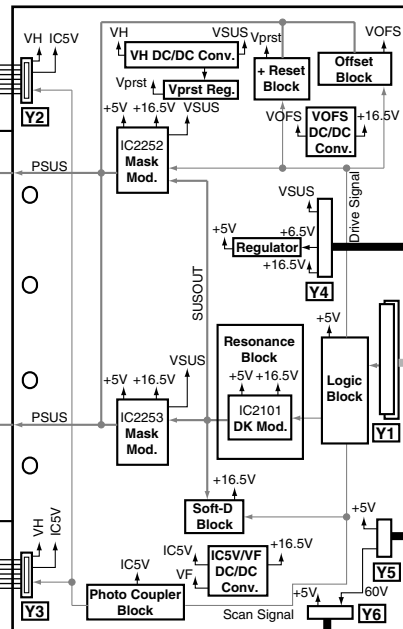
3.2 OVERALL BLOCK DIAGRAM

A

50 SCAN B ASSY (UPPER)



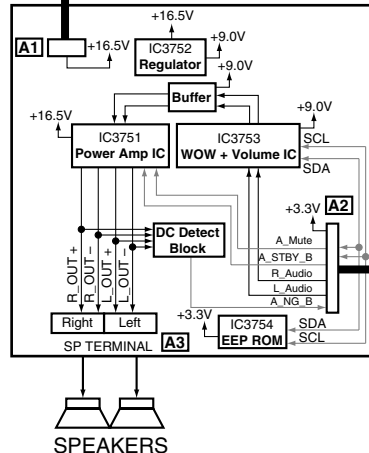
50 Y DRIVE ASSY



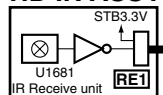
50 SCAN A ASSY (LOWER)



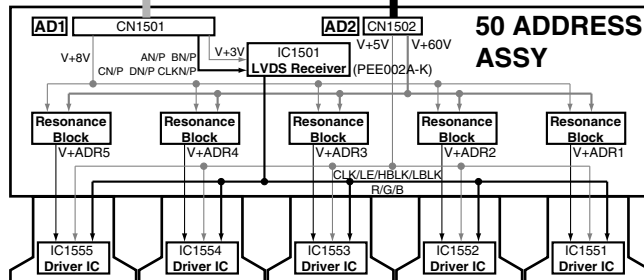
HD AUDIO ASSY



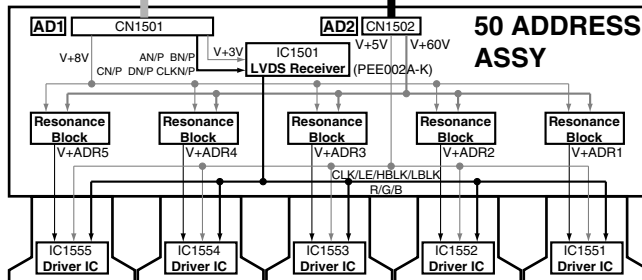
HD IR ASSY

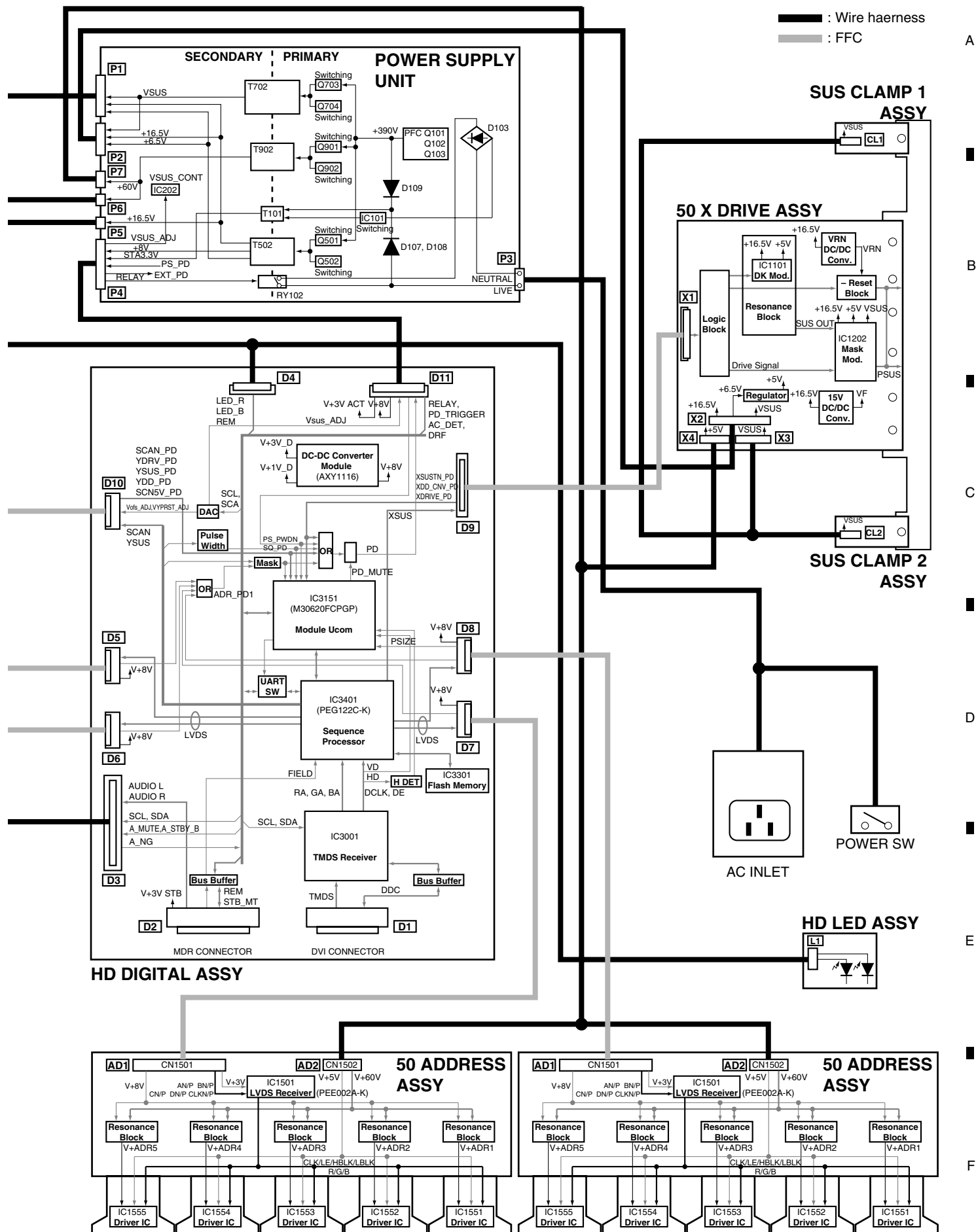


50 ADDRESS ASSY



50 ADDRESS ASSY





1 2 3 4

3.3 50 ADDRESS ASSY

A

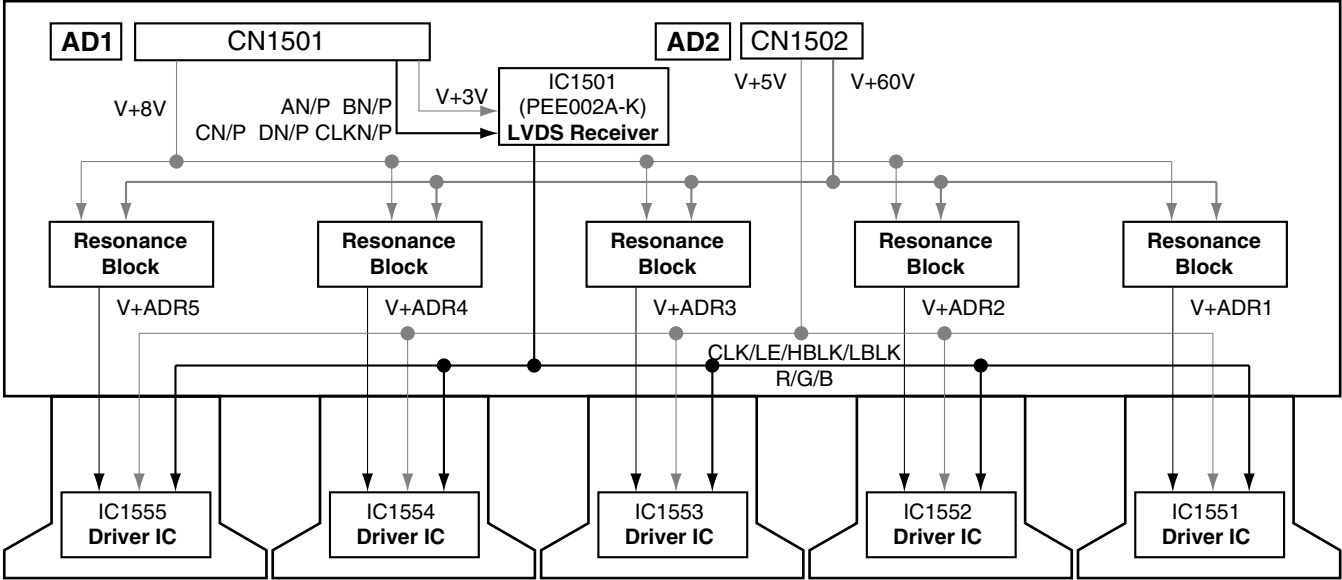
B

C

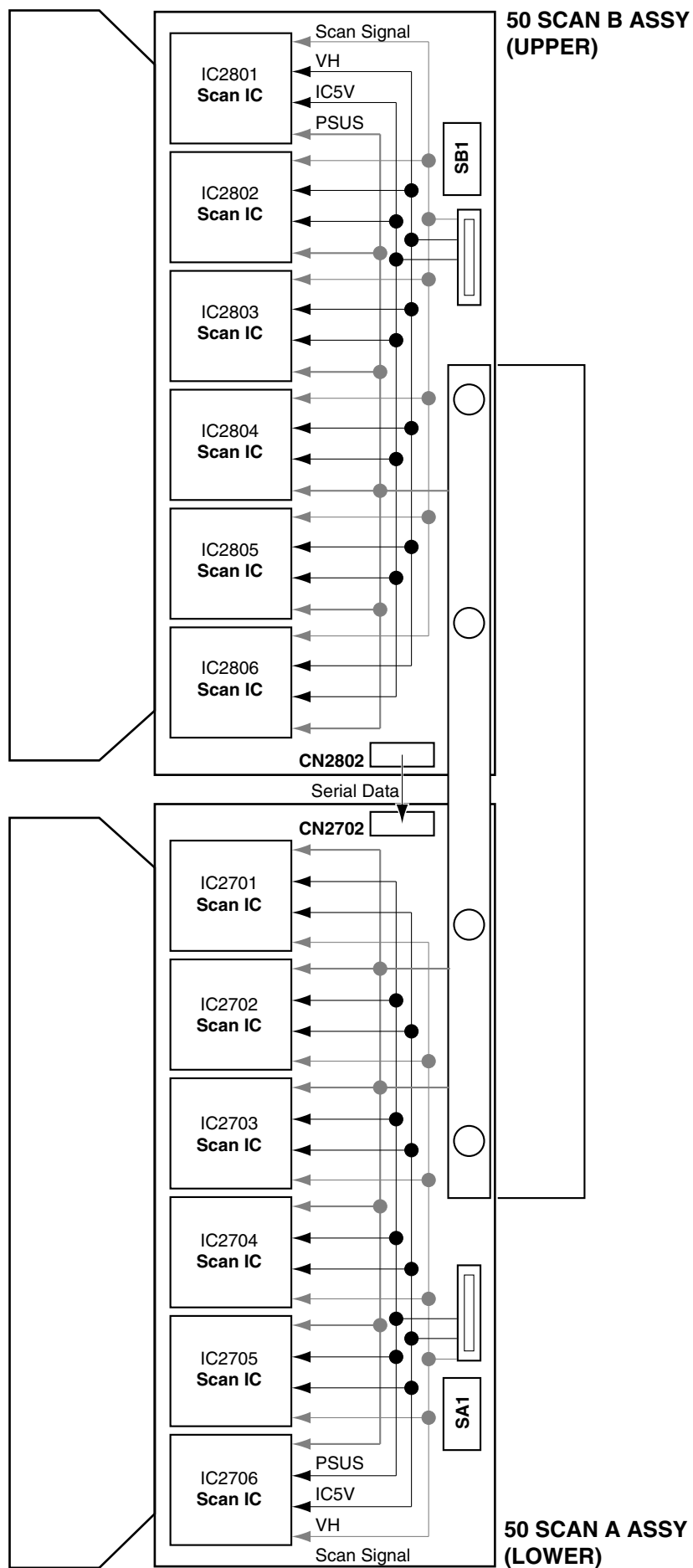
D

E

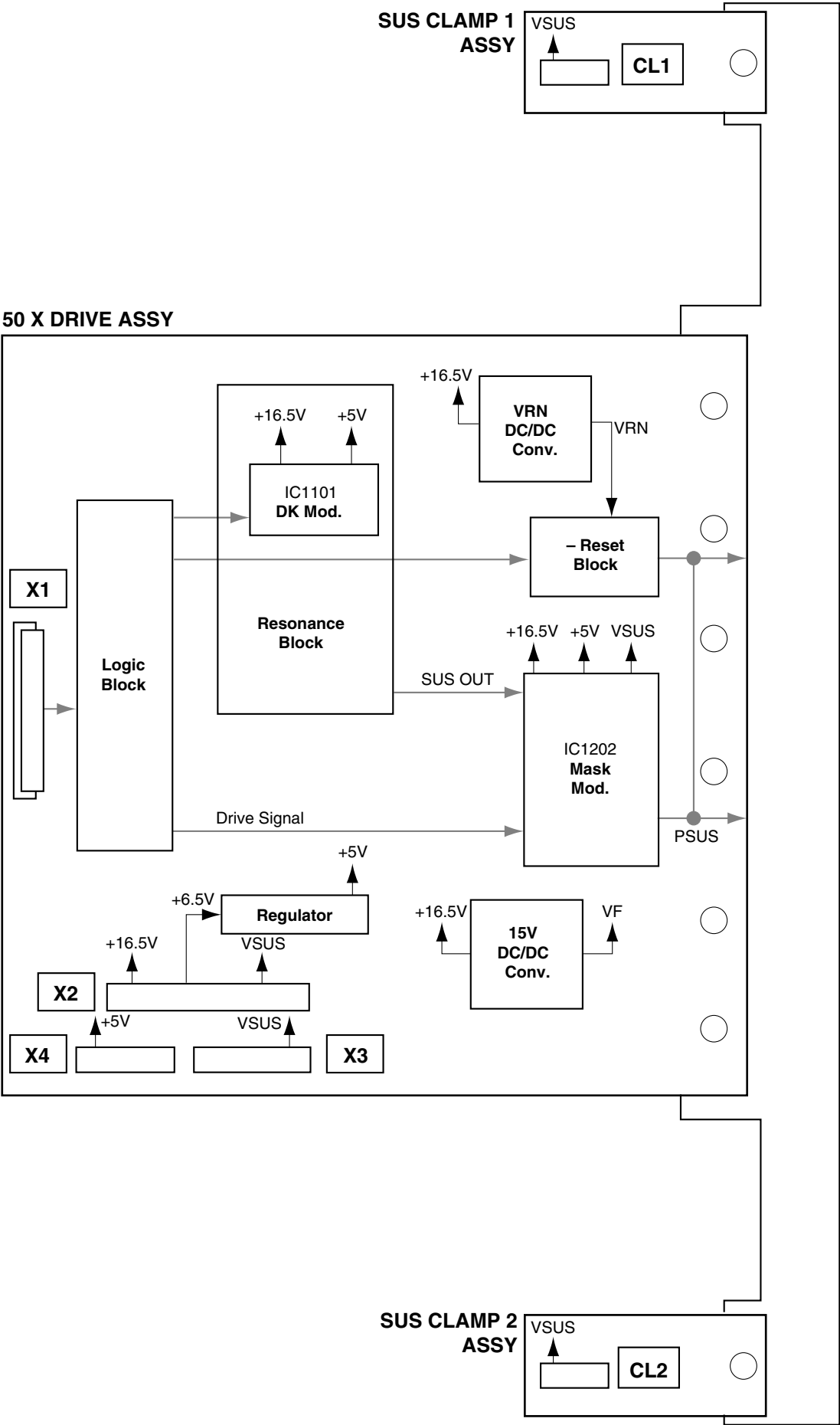
F



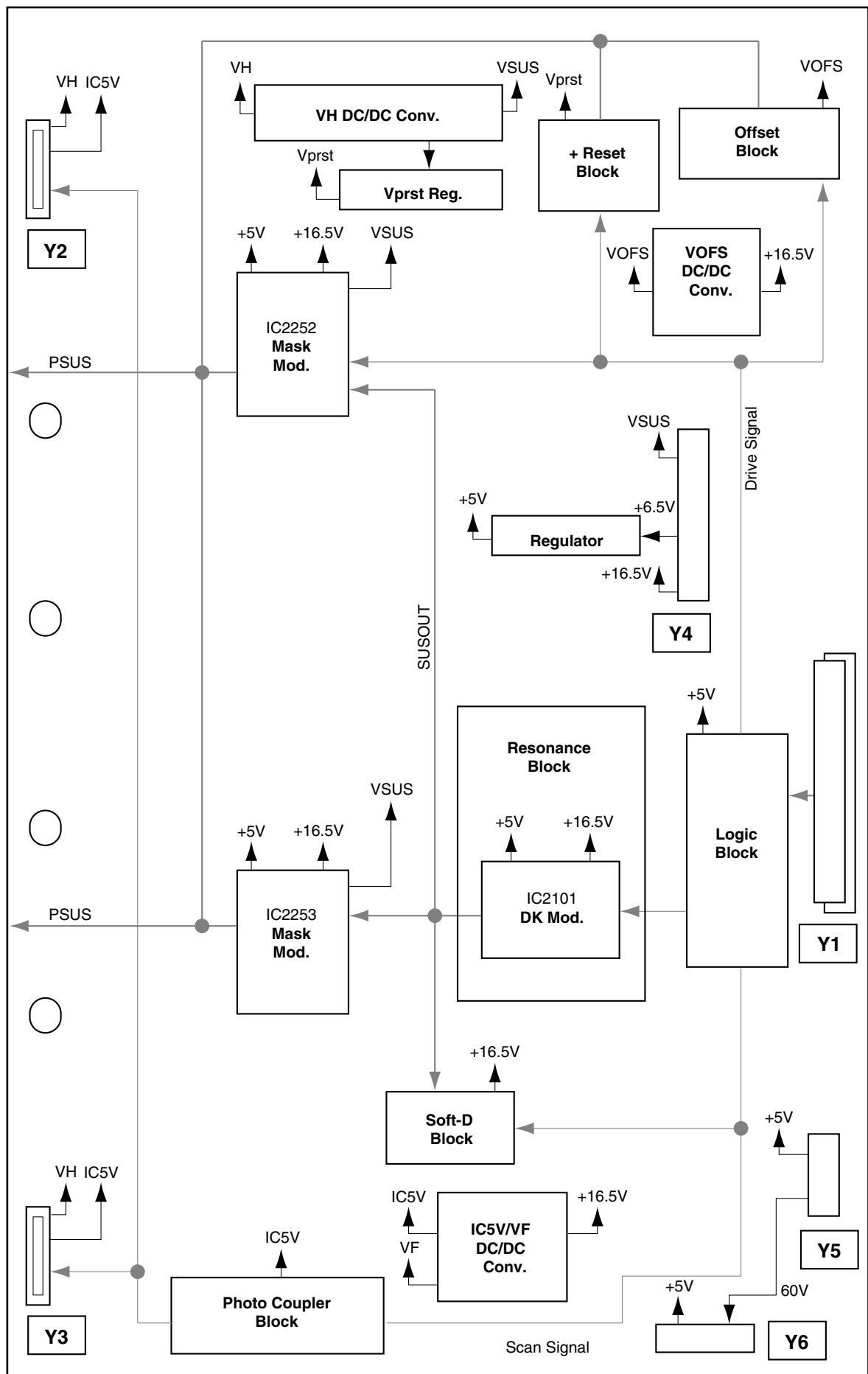
3.4 50 SCAN A and B ASSYS



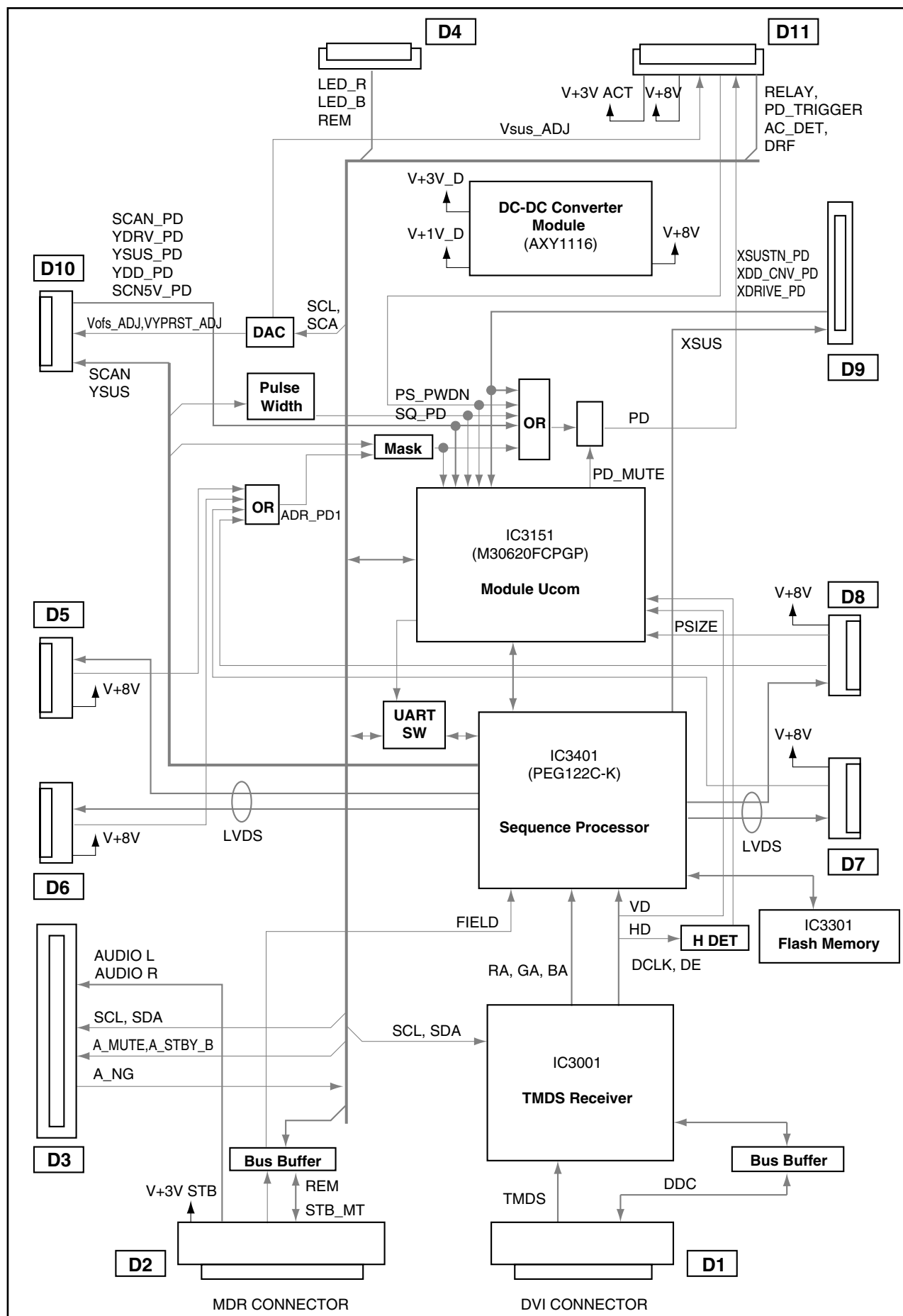
3.5 50 X DRIVE, SUS CLAMP 1 and SUS CLAMP 2 ASSYS



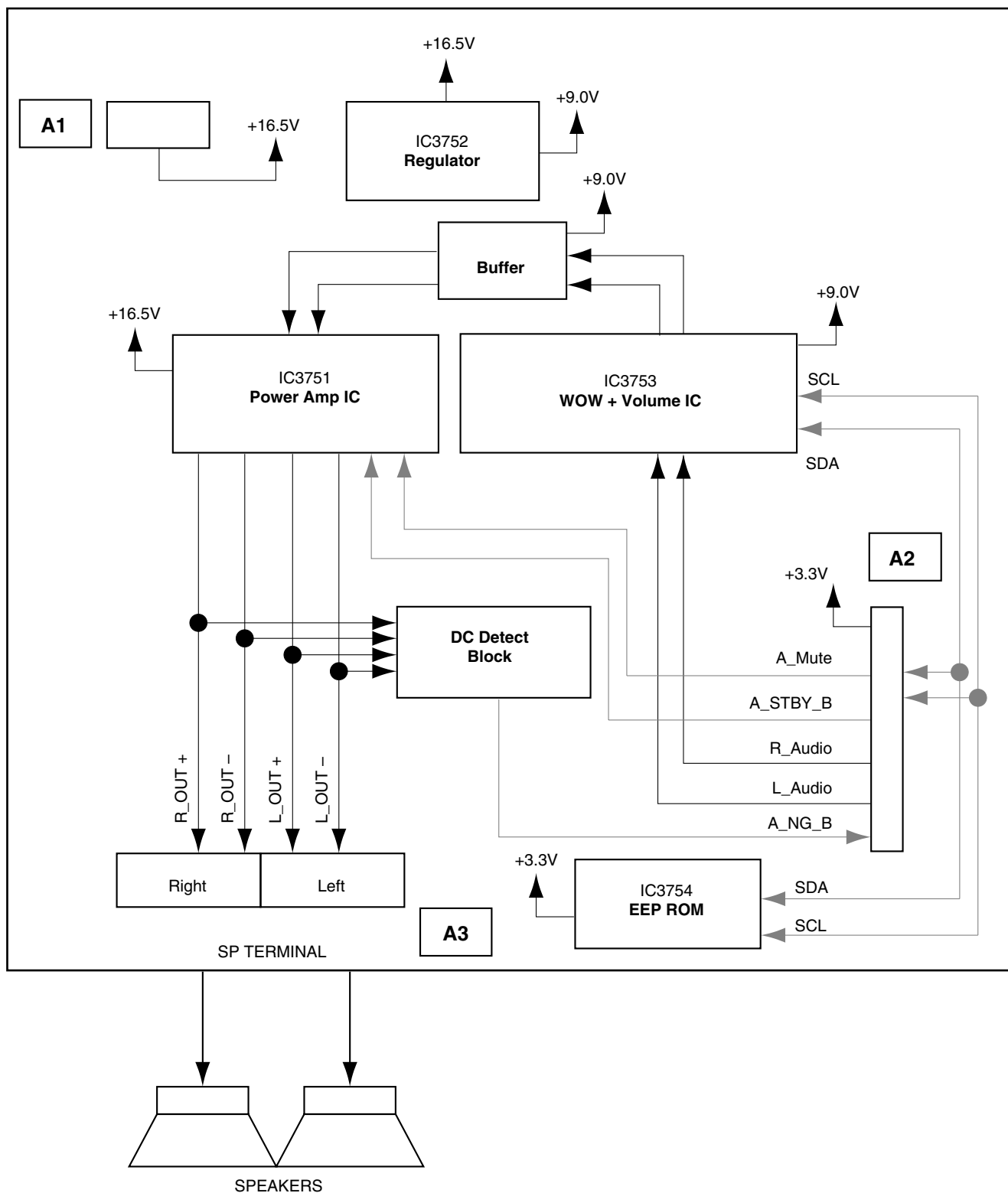
3.6 50 Y DRIVE ASSY



3.7 HD DIGITAL ASSY



3.8 HD AUDIO ASSY



3.9 POWER SUPPLY UNIT

A

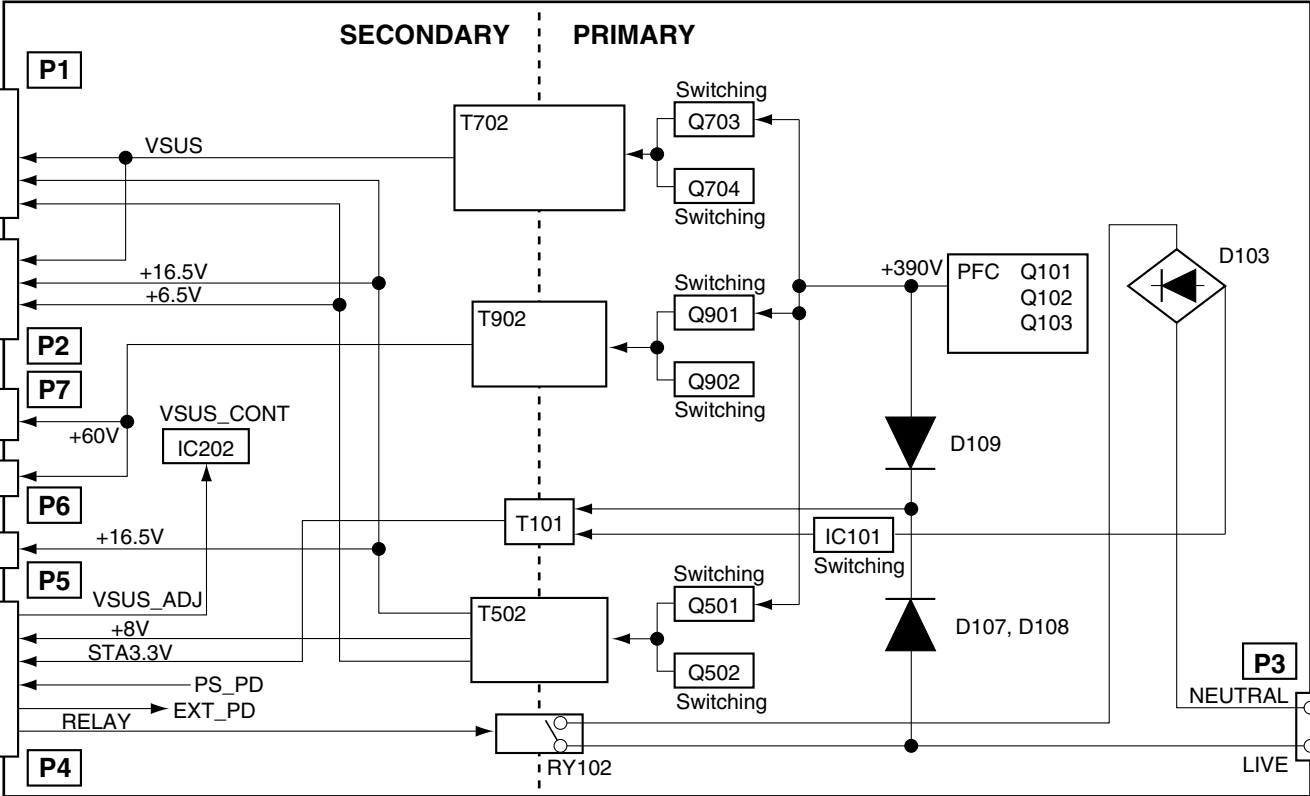
B

C

D

E

F



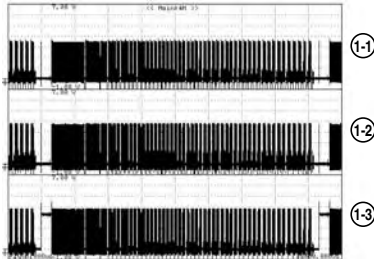
3.10 WAVEFORMS

Note : The encircled numbers denote measuring point in the schematic diagram.
Refer to service manual (ARP3268).

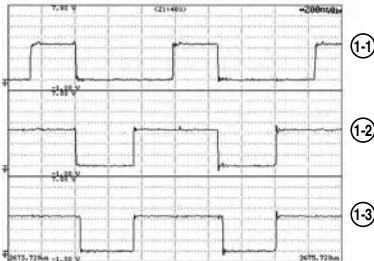
50 ADDRESS ASSY

50 ADDRESS RESONANCE BLOCK

- ① Control signal of resonance circuit (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
①-1 CH1 : ADDR_B2
V : 1V/div H : 2msec/div
①-2 CH2 : ADDR_U2
V : 1V/div H : 2msec/div
①-3 CH3 : ADDR_D2
V : 1V/div H : 2msec/div

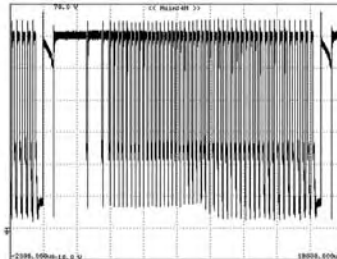


- ① Control signal of resonance circuit (2 FS)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
①-1 CH1 : ADDR_B2
V : 1V/div H : 2msec/div
①-2 CH2 : ADDR_U2
V : 1V/div H : 2msec/div
①-3 CH3 : ADDR_D2
V : 1V/div H : 2msec/div

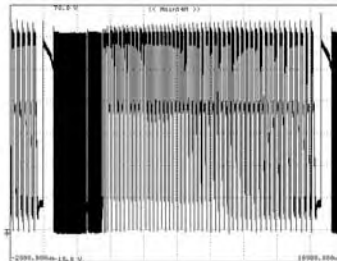


50 ADDRESS LOGIC BLOCK

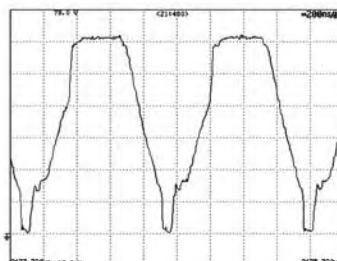
- ② VADR (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div



- ② VADR (1 field)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div

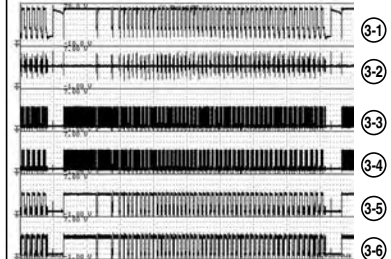


- ② VADR (2 FS)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
CH2 : IC1555-pin 3 (VDD2)
V : 10V/div H : 200nsec/div

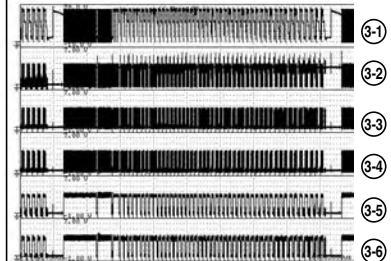


TCP LOGIC

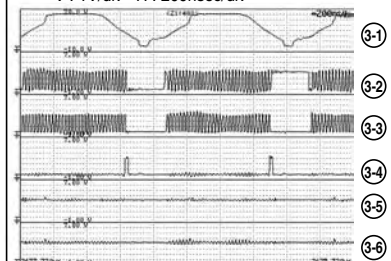
- ③ Incoming signal of TCP (1 field)
Input : VIDEO 60Hz
Signal : Color-bar (MKSS17)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 2msec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 2msec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 2msec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 2msec/div
③-6 CH6 : IC1555-pin 17 (LCLK)
V : 1V/div H : 2msec/div



- ③ Incoming signal of TCP (1 field)
Input : VIDEO 60Hz
Signal : Checkered pattern of Black-White (MKSS13)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 2msec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 2msec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 2msec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 2msec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 2msec/div
③-6 CH6 : IC1555-pin 17 (LCLK)
V : 1V/div H : 2msec/div



- ③ Incoming signal of TCP (Resonance part)
Input : VIDEO
Signal : Checkered pattern of Black-White (MKSS13)
③-1 CH1 : IC1555-pin 3 (VDD2)
V : 10V/div H : 200nsec/div
③-2 CH2 : IC1555-pin 9 (A3)
V : 1V/div H : 200nsec/div
③-3 CH3 : IC1555-pin 16 (CLK)
V : 1V/div H : 200nsec/div
③-4 CH4 : IC1555-pin 14 (LE)
V : 1V/div H : 200nsec/div
③-5 CH5 : IC1555-pin 19 (HBLK)
V : 1V/div H : 200nsec/div
③-6 CH6 : IC1555-pin 17 (LCLK)
V : 1V/div H : 200nsec/div



A

50 X DRIVE, 50 Y DRIVE ASSY

B

C

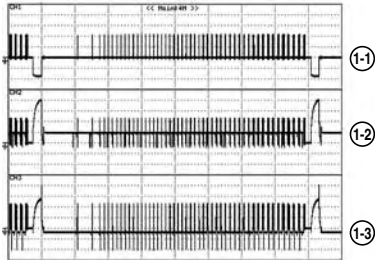
D

E

F

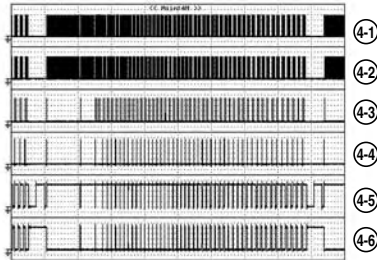
① Drive output signal (1 field, Color-bar)

- ①-1 CH1 : R1277 (XPSUS) - K1203 (SUSGND)
V : 100V/div H : 2msec/div (X DRIVE Assy)
- ①-2 CH2 : K2701 (SCANOUT) - K2330 (SUSGND)
V : 100V/div H : 2msec/div (SCAN A Assy)
- ①-3 CH3 : F2301 (YPSUS) - K2330 (SUSGND)
V : 100V/div H : 2msec/div (Y DRIVE Assy)



④ Scan control signal (1 field, Color-bar)

- ④-1 CH1 : TP2001 (LE) - K2002 (GND-D)
V : 1V/div H : 2msec/div (X DRIVE Assy)
- ④-2 CH2 : TP2008 (CLK) - K2002 (GND-D)
V : 1V/div H : 2msec/div (X DRIVE Assy)
- ④-3 CH3 : TP2003 (SI-H) - K2002 (GND-D)
V : 1V/div H : 2msec/div (X DRIVE Assy)
- ④-4 CH4 : TP2004 (CLR) - K2002 (GND-D)
V : 1V/div H : 2msec/div (X DRIVE Assy)
- ④-5 CH5 : TP2005 (OC2) - K2002 (GND-D)
V : 1V/div H : 2msec/div (X DRIVE Assy)
- ④-6 CH6 : TP2006 (OC1) - K2002 (GND-D)
V : 1V/div H : 2msec/div (X DRIVE Assy)



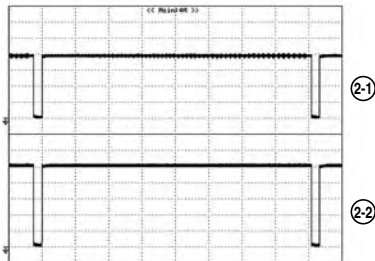
⑦ Sustain signal

- ⑦-1 CH1 : F2301 (YPSUS) - K2330 (SUSGND)
V : 50V/div H : 500nsec/div (Y DRIVE Assy)
- ⑦-2 CH2 : K2004 (YSUS-G) - K2002 (DGND)
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
- ⑦-3 CH3 : K2011 (YSUS-U) - K2002 (DGND)
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
- ⑦-4 CH4 : K2009 (YSUS-B) - K2002 (DGND)
V : 5V/div H : 500nsec/div (Y DRIVE Assy)
- ⑦-5 CH5 : K2010 (YSUS-D) - K2002 (DGND)
V : 5V/div H : 500nsec/div (Y DRIVE Assy)



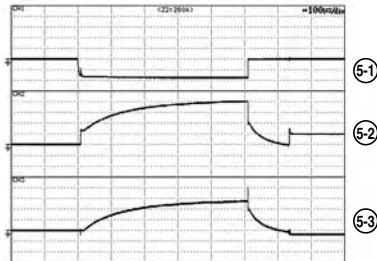
② X Drive pulse control signal (Color-bar)

- ②-1 CH1 : K1009 (XSUS-MSK) - K1001 (DGND)
V : 1V/div H : 2msec/div (X DRIVE Assy)
- ②-2 CH2 : K1005 (XNR-D) - K1001 (DGND)
V : 1V/div H : 2msec/div (X DRIVE Assy)



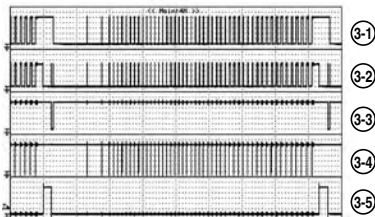
⑤ Reset pulse signal

- ⑤-1 CH1 : R1277 (XPSUS) - K1203 (SUSGND)
V : 100V/div H : 100µsec/div (X DRIVE Assy)
- ⑤-2 CH2 : K2701 (SCANOUT) - K2330 (SUSGND)
V : 100V/div H : 100µsec/div (SCAN A Assy)
- ⑤-3 CH3 : F2301 (YPSUS) - K2330 (SUSGND)
V : 100V/div H : 100µsec/div (Y DRIVE Assy)



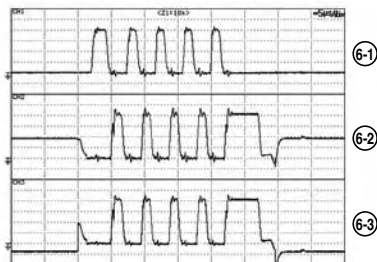
③ Y Drive pulse control signal (Color-bar)

- ③-1 CH1 : K2007 (YNOFS) - K2002 (GND_D)
V : 1V/div H : 2msec/div (Y DRIVE Assy)
- ③-2 CH2 : K2005 (YSUS-MSK) - K2002 (GND_D)
V : 1V/div H : 2msec/div (Y DRIVE Assy)
- ③-3 CH3 : K2008 (YNRST) - K2002 (GND_D)
V : 1V/div H : 2msec/div (Y DRIVE Assy)
- ③-4 CH4 : K2006 (SOFT-D) - K2002 (GND_D)
V : 1V/div H : 2msec/div (Y DRIVE Assy)
- ③-5 CH5 : K2023 (YPR-U) - K2002 (GND_D)
V : 1V/div H : 2msec/div (Y DRIVE Assy)



⑥ Sustain pulse signal (1 sub, sub field)

- ⑥-1 CH1 : R1277 (XPSUS) - K1203 (SUSGND)
V : 50V/div H : 5µsec/div (X DRIVE Assy)
- ⑥-2 CH2 : K2701 (SCANOUT) - K2330 (SUSGND)
V : 50V/div H : 5µsec/div (SCAN A Assy)
- ⑥-3 CH3 : F2301 (YPSUS) - K2330 (SUSGND)
V : 50V/div H : 5µsec/div (Y DRIVE Assy)



5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

●The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

●When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56 $\times 10^1$ \rightarrow 561 RD1/4PU $\overline{561}J$

47k Ω \rightarrow 47 $\times 10^3$ \rightarrow 473 RD1/4PU $\overline{473}J$

0.5 Ω \rightarrow R50 RN2H $\overline{R50}K$

1 Ω \rightarrow 1R0 RS1P $\overline{1R0}K$

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562 $\times 10^1$ \rightarrow 5621 RN1/4PC $\overline{5621}F$

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	PDP-506PE /WYVI	PDP-506PU /KUCXC
NSP	1..PANEL CHASSIS (506) ASSY	AWU1143	AWU1143
NSP	2..50 ADDRESS ASSY	AWV2208	AWV2208
NSP	2..50 SCAN ASSY	AWV2211	AWV2211
NSP	3..50 SCAN A ASSY	AWW1026	AWW1026
NSP	3..50 SCAN B ASSY	AWW1027	AWW1027
NSP	1..50 X DRIVE ASSY	AWV2257	AWV2209 or AWW2257
	2..50 X DRIVE ASSY	AWW1075	AWW1020 or AWW1075
	2..SUS CLAMP 1 ASSY	AWW1022	AWW1022
	2..SUS CLAMP 2 ASSY	AWW1023	AWW1023
NSP	1..50 Y DRIVE ASSY	AWV2258	AWV2210 or AWW2258
	1..HD DIGITAL ASSY	AWV2202	AWV2202
	2..HD DIGITAL ASSY	AWW1028	AWW1028
	2..HD LED ASSY	AWW1029	AWW1029
	2..HD IR ASSY	AWW1030	AWW1030
	1..HD AUDIO ASSY	AWV2203	AWV2203
Δ	1..POWER SUPPLY UNIT	AXY1112	AXY1112

50 X DRIVE ASSY

AWW1075 and AWW1020 are constructed the same except for the following :

Mark	Symbol and Description	AWW1075	AWW1020
	IC1101	AXF1142	AXF1155
	C1101	ACG1112 (0.22U/250V)	ACG1088 (0.1U/250V)
	C1106-C1110	Not used	ACE1178
	C1112, C1113 (0.22U/250V)	ACG1112	Not used
	C1161-C1164, C1166	ACE1168	Not used
	C1297, C1298 (3300p/630V)	ACG1129	Not used

50 Y DRIVE ASSY

AWV2258 and AWW2210 are constructed the same except for the following :

Mark	Symbol and Description	AWV2258	AWV2210
	IC2101	AXF1142	AXF1155
	C2103	ACG1112 (0.22U/250V)	ACG1088 (0.1U/250V)
	C2107, C2108 (0.22U/250V)	ACG1112	Not used
	C2131-C2134, C2136	ACE1168	ACE1178
	C2271	ACG1124 (0.1U/100V)	ACG1118 (0.33U/100V)
	C2272 (0.1U/100V)	ACG1124	Not used

AKP1261

RS1/16S###J

AKP1261

TC74VHC00FTS1

5	6	7	8
Mark No. Description	Part No.	Mark No. Description	Part No.
<u>CAPACITORS</u>		<u>CAPACITORS</u>	
C1003	CEHAT470M16	C1214-C1217	ACE1178
C1001,C1002	CKSRYB104K16	C1212,C1213	ACH1423
		C1231	CEHAT101M10
<u>RESISTORS</u>		C1206	CEHAT101M25
R1001,R1003	RAB4C470J	C1283	CEHAT2R2M2E
R1008,R1009	RAB4C472J		
Other Resistors	RS1/16S###J	C1208	CEHAT470M16
		C1222,C1272	CEHAT470M25
<u>OTHERS</u>		C1221	CKSRYB105K6R3
CN1001 18P FFC CONNECTOR	VKN1310	C1204,C1207,C1223,C1251,C1253	CKSRYF104Z50
		C1273	CKSRYF104Z50
		C1220	CKSYB105K25
[50X RESONANCE BLOCK]		<u>RESISTORS</u>	
<u>SEMICONDUCTORS</u>		R1204	ACN1166
IC1101	AXF1142	R1213	ACN1168
IC1141	BA10393F	R1276,R1277	RS3LMF470J
Q1141	2SC4116	Other Resistors	RS1/16S###J
D1101-D1105	D1FL40		
<u>COILS AND FILTERS</u>		<u>OTHERS</u>	
L1103,L1104 CHOKE COIL	ATH1119	KN1201-KN1206 GROUND PLATE	ANK-142
L1101,L1102 CHOKE COIL	ATH1187	KN1208-KN1211 GROUND PLATE	ANK-142
L1105,L1106 CHOKE COIL	ATH1187	CN1202 6P TOP POST	B6B-EH
		CN1201 8P TOP POST	B8B-EH
<u>CAPACITORS</u>		<u>[50X D-D CON BLOCK]</u>	
C1161-C1164,C1116 (3.3U/250V)	ACE1168	<u>SEMICONDUCTORS</u>	
C1101,C1112,C1113 (0.22U/250V)	ACG1112	IC1321	PS2701A-1(L)
C1121 (470p/630V)	ACG1126	IC1326	TA76431FR
C1105	CCG1186	Q1324	2SA1037K
C1141,C1142,C1144,C1145	CKSRYB104K16	Q1302	2SC4081
		Q1301,Q1323	2SD1898
C1102,C1146	CKSRYB105K6R3		
C1103	CKSYB105K25	Q1321,Q1325,Q1351	HN1C01FU
<u>RESISTORS</u>		D1303,D1324	1SS301
R1101	ACN1168	D1304,D1307,D1325,D1328	1SS355
R1142,R1146	RS1/10S1003F	D1301,D1302,D1326,D1327	CRH01
R1122,R1123	RS1/10S104J	D1321	D1FK60
R1148,R1150	RS1/16S5601F		
R1151,R1155	RS1/16S6801F	D1329,D1330	UDZS4R7(B)
		D1306,D1323,D1331	UDZS5R1(B)
R1106,R1121	RS2MMF100J		
Other Resistors	RS1/16S###J	<u>COILS AND FILTERS</u>	
<u>[50X SUS BLOCK]</u>		⚠ T1301 SWITCHING TRANS.	ATK1159
<u>SEMICONDUCTORS</u>		⚠ T1321 SWITCHING TRANS.	ATK1160
IC1202	AXF1140	<u>CAPACITORS</u>	
IC1201	MM1565AF	C1325	ACH1428
IC1252	PS9117	C1326	CEHAT100M50
IC1251	TND301S	C1302,C1321	CEHAT101M25
IC1271	TND307TD	C1301,C1303,C1323	CKSRYB103K50
		C1304,C1306,C1327	CKSRYB104K16
Q1251	2SC2412K		
Q1272	2SK3325-Z	C1307,C1324	CKSYB105K25
D1281	1SS302		
D1201	1SS355	<u>RESISTORS</u>	
D1252	CRH01	R1337	RAB4C472J
		R1321,R1322,R1326,R1339	RS1/10S224J
D1282	UDZS16(B)	VR1321	CCP1392
D1251	UDZS5R6(B)	Other Resistors	RS1/16S###J
<u>COILS AND FILTERS</u>			
L1204,L1211 INDUCTOR	ATH1186		
F1201 INDUCTOR	CTF1449		
L1201,L1205,L1231	LFEA100J		

Mark No. Description**Part No.****Mark No. Description****Part No.****SUS CLAMP 1 ASSY
SEMICONDUCTORS**

D1631

DF20L60U

CAPACITORS

C1632

ACE1179

OTHERS

KN1632 GROUND PLATE
 CN1631 3P TOP POST
 KN1631 WRAPPING TERMINAL

ANK-142
 B3B-EH
 VNF1084

**SUS CLAMP 2 ASSY
SEMICONDUCTORS**

D1641

DF20L60U

CAPACITORS

C1642

ACE1179

OTHERS

KN1642 GROUND PLATE
 CN1641 3P TOP POST
 KN1641 WRAPPING TERMINAL

ANK-142
 B3B-EH
 VNF1084

**50 Y DRIVE ASSY
[50Y LOGIC BLOCK]
SEMICONDUCTORS**

IC2002
 IC2001,IC2004
 IC2003,IC2005

TC74ACT540FT
 TC74ACT541FT
 TC74VHC08FTS1

CAPACITORS

C2003
 C2001,C2002,C2004-C2006

CEHAT470M16
 CKSSYB104K10

RESISTORS

R2003,R2006
 R2001,R2002,R2017,R2021
 R2004,R2005,R2019,R2020
 Other Resistors

RAB4C101J
 RAB4C470J
 RAB4C472J
 RS1/16S###J

OTHERS

CN2001 40P CONNECTOR

AKM1217

**[50Y RESONANCE BLOCK]
SEMICONDUCTORS**

IC2101
 IC2141
 Q2141
 D2101-D2105

AXF1142
 BA10393F
 2SC4081
 D1FL40

COILS AND FILTERS

L2103,L2104 CHOKE COIL
 L2101,L2102 CHOKE COIL
 L2105,L2106 CHOKE COIL

ATH1119
 ATH1187
 ATH1187

CAPACITORS

C2131-C2134,C2136 (3.3U/250V)
 C2103,C2107,C2108 (0.22U/250V)
 C2104 (470p/630V)
 C2106
 C2101,C2145

ACE1168
 ACG1112
 ACG1126
 CCG1186
 CKSRYB105K6R3

RESISTORS

R2101
 R2142,R2143
 R2103,R2107
 R2146,R2149
 R2147,R2151

ACN1174
 RS1/10S1003F
 RS1/10S104J
 RS1/16S5601F
 RS1/16S6801F

R2102
 R2108
 Other Resistors

RS2MMF100J
 RS3LMF100J
 RS1/16S###J

**[50Y SUS BLOCK]
SEMICONDUCTORS**

IC2252,IC2253
 IC2350
 IC2250
 IC2231,IC2251
 IC2203,IC2221

AXF1141
 MM1565AF
 PS9117
 TND301S
 TND307TD

Q2202
 Q2250
 Q2290
 Q2221
 Q2280,Q2281

2SA2142
 2SC4081
 2SK3050
 2SK3325-Z
 2SK3399

D2233
 D2213
 D2203,D2212,D2351
 D2202,D2204,D2205,D2234
 D2251,D2252,D2272

1SS301
 1SS302
 1SS355
 CRH01
 CRH01

D2211
 D2232,D2271
 D2250

D1FK60
 UDZS16(B)
 UDZS5R6(B)

COILS AND FILTERS

L2353 INDUCTOR
 F2301-F2320 FERRITE BEAD
 F2352 INDUCTOR
 L2350,L2351,L2354

ATH1186
 ATX1055
 CTF1449
 LFEA100J

CAPACITORS

C2330,C2335,C2341,C2342
 C2231 (0.33U/100V)
 C2271,C2272 (0.1U/100V)
 C2336,C2337
 C2270

ACE1178
 ACG1118
 ACG1124
 ACH1423
 ACH1426

C2226
 C2207
 C2355,C2369
 C2357
 C2208,C2221,C2339,C2364

ACH1427
 CCSRCH102J50
 CEHAT101M10
 CEHAT470M16
 CEHAT470M25

C2356
 C2353,C2358,C2359
 C2363
 C2209,C2222,C2230,C2252
 C2250

CKSRYB104K16
 CKSRYB105K6R3
 CKSRYB473K16
 CKSRYF104Z50
 CKSSYB104K10

C2354,C2360

CKSYB105K25

PDP-506PE

Mark No. Description**Part No.****Mark No. Description****Part No.****RESISTORS**

R2613
R2641,R2642
R2629
R2625,R2626
R2608,R2612,R2630,R2632,R2635

RAB4C472J
RS1/10S224J
RS1/16S1002F
RS1/16S1501F
RS1/16S4701F

R2618
R2636
R2652
R2627
VR2601

RS1/16S4702F
RS1/16S5601F
RS1/16S6801F
RS3LMF151J
CCP1390

Other Resistors

RS1/16S###J

OTHERS

CN3003 PH CONNECTOR 6P
CN3004 PH CONNECTOR 12P
JA3001 DVI CONNECTOR
JA3002 MDR CONNECTOR

AKM1277
AKM1298
AKP1276
AKP1277

**[MODULE UCOM BLOCK]
SEMICONDUCTORS**

IC3156
IC3151
IC3157
IC3158
IC3155

BR24L04FJ-W
M30620FCPGP-U5C
M62334FP
MM1522XU
SN74AHC08PW

IC3152,IC3153
IC3160
IC3159
Q3151
D3156,D3159,D3161-D3163

SN74AHC541PW
TC74VHC123AFTS1
TC7W126FU
2SJ461A
1SS355

D3151,D3152,D3154,D3155,D3158

DAN202U

CAPACITORS

C3151
C3164
C3171,C3172,C3180
C3154
C3152,C3153,C3155-C3158

ACH1357
CCSSCH101J50
CKSRYB105K6R3
CKSSYB102K50
CKSSYF104Z16

C3160-C3163,C3165,C3166,C3170

CKSSYF104Z16

RESISTORS

R3160,R3171,R3176
R3174
Other Resistors

RAB4C101J
RAB4C103J
RS1/16S###J

OTHERS

⚠ X3151 CERAMIC RESONATOR

ASS1178

**[PANEL FLASH BLOCK]
SEMICONDUCTORS**

IC3301
IC3304
IC3302,IC3305
IC3303
Q3302

MBM29PL160TD75TN
PST3610UR
PST3628UR
SN74AHC08PW
HN1C01FU

Q3301

RN1901

CAPACITORS

C3311
C3317
C3304,C3307,C3309
C3305,C3310
C3315

CCSRCH470J50
CCSRCH471J50
CKSRYB472K50
CKSSYB102K50
CKSSYB104K10

C3301-C3303,C3306,C3308,C3316

CKSSYF104Z16

RESISTORS

All Resistors

RS1/16S###J

OTHERS

⚠ X3302 CRYSTAL OSCILLATOR

ASS1188

HD DIGITAL ASSY**OTHERS**

DD CON UNIT
REMOTE RECEIVER UNIT

AXY1116
RPM7240-H4

HD DIGITAL ASSY**[TMD5 RX BLOCK]****SEMICONDUCTORS**

IC3002
IC3001
IC3004
Q3009
Q3007

BA8274F
SII1169CTU
SN74AHC32PW
2SC4081
DTA143EUA

Q3004
Q3005
Q3002,Q3006,Q3008
Q3003
D3001,D3002

DTC124EUA
DTC143EUA
RN1901
RN2901
1SS355

D3012
D3007-D3011
D3003

DA204U
RB751V-40
UDZS6R8(B)

COILS AND FILTERS

F3005 CHIP SOLID INDUCTOR
L3003 CHIP SOLID INDUCTOR

QTL1011
QTL1013

CAPACITORS

C3030
C3034,C3036,C3038,C3040,C3042
C3003,C3005,C3009,C3014,C3019
C3046
C3044,C3045

ACH1357
ACH1396
CCSRCH331J50
CCSRCH470J50
CCSSCH101J50

C3001,C3008,C3011,C3020,C3022
C3025-C3027
C3018,C3021,C3023,C3024
C3015-C3017,C3028,C3029
C3031,C3032,C3035,C3037,C3039

CCSSCH820J50
CCSSCH820J50
CKSRYF105Z10
CKSSYF104Z16
CKSSYF104Z16

C3041,C3043

CKSSYF104Z16

RESISTORS

R3007
R3008-R3013
R3018
R3021
Other Resistors

RAB4C220J
RAB4C470J
RAB4C472J
RS1/16S3900F
RS1/16S###J

5	6	7	8
Mark No. Description Part No.	Mark No. Description Part No.		
[SQ ASIC BLOCK] SEMICONDUCTORS		HD IR ASSY SEMICONDUCTORS	
IC3401	PEG122C	Q1681	2SC4116
		D1681	DA204U
COILS AND FILTERS		CAPACITORS	
F3401,F3402 EMI FILTER CCG1162		C1681	CEVW470M6R3
L3401-L3403 CHIP SOLID INDUCTOR QTL1013		C1682	CKSRYB103K50
		C1683	CKSSYB102K50
CAPACITORS		C1684	CKSSYF104Z16
C3402,C3419 (100UF/6.3V)	ACH1396		
C3425,C3441 (100UF/6.3V)	ACH1396		
C3414-C3416,C3426-C3438	CKSRYF105Z10		
C3403-C3410,C3412,C3413	CKSSYF104Z16		
C3417,C3418,C3420-C3424	CKSSYF104Z16		
		RESISTORS	
C3439,C3440,C3442-C3449	CKSSYF104Z16	All Resistors	RS1/16S###J
RESISTORS		OTHERS	
R3402,R3412	RAB4C101J	CN1681 3P L TYPE PLUG	KM200NA3L
R3405-R3407,R3409,R3410	RAB4C220J	V1681 REMOTE RECEIVER UNIT	RPM7240-H4
R3416,R3417	RAB4C220J		
R3425	RS1/16S5601F		
Other Resistors	RS1/16S###J		
		HD AUDIO ASSY	
[ADDRESS BLOCK] SEMICONDUCTORS		OTHERS	
D3501,D3502	DAN202U	J3901 1P BOARD IN WIRE	ADX3123
CAPACITORS		[AUDIO AMP BLOCK] SEMICONDUCTORS	
C3501-C3504	CKSSYB102K50	IC3754	BR24L02FJ-W
		IC3751	LA4625
RESISTORS		IC3752	NJM7809FA
R3521,R3522,R3525	RAB4C101J	IC3753	NJW1183L
R3524	RAB4C222J	Q3751,Q3754,Q3755,Q3757	2SA1576A
R3519,R3520	RAB4C472J		
Other Resistors	RS1/16S###J	Q3756,Q3759	2SC4081
		Q3758,Q3760	DTC124EUA
OTHERS		CAPACITORS	
CN3501-CN3504 40P CONNECTOR	AKM1217	C3797,C3808,C3812,C3814	CEAT1R0M50
CN3506 40P CONNECTOR	AKM1217	C3775,C3777,C3788,C3790,C3791	CEHAT100M50
CN3505	VKN1310	C3799	CEHAT100M50
		C3761,C3764,C3786,C3798	CEHAT101M16
[DIGITAL DD CON BLOCK] CAPACITORS		C3766,C3780,C3783-C3785	CEHAT1R0M50
C3609	CKSSYF104Z16		
RESISTORS		C3762	CEHAT220M50
R3611	RAB4C101J	C3752,C3753,C3819,C3820	CEHAT2R2M50
Other Resistors	RS1/16S###J	C3759	CEHAT331M16
		C3757	CEHAT471M25
HD LED ASSY SEMICONDUCTORS		C3755	CEHAT472M25
D1671	SML-311UT		
D1672	SML512BC4T	C3763	CEHATR47M50
		C3754,C3805	CFTLA103J50
COILS AND FILTERS		C3767,C3770,C3772-C3774	CFTLA104J50
⚠ F1671-F1673 CHIP SOLID INDUCTOR QTL1011		C3781,C3782,C3789,C3792-C3795	CFTLA104J50
		C3806,C3807,C3813	CFTLA104J50
		C3810	CFTLA223J50
		C3778	CFTLA334J50
		C3758,C3760,C3796	CKSRYB103K50
		C3769,C3815	CKSRYB222K50
		C3779	CKSRYB822K50
		C3816	CKSRYF104Z16
		RESISTORS	
		R3768-R3770,R3782	RD1/2MMF2R2J
		R3752	RD1/2MMF4R7J
		Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
<u>OTHERS</u>		
A	CN3752 12P PH CONNECTOR	AKM1335
	3771 AUDIO HEATSINK	ANH1636
	CN3751 3P TOP POST (VH)	B3P-VH
	3772-3775 SCREW	VBB30P100FNI
	KN3751 WRAPPING TERMINAL	VNF1084
	KN3752 WRAPPING TERMINAL	VNF1084

■

[ST TERMINAL BLOCK]
COILS AND FILTERS

	⚠ L3901,L3902 LINE FILTER	ATF1206
B	<u>CAPACITORS</u>	
	⚠ C3906,C3908,C3914,C3916	CCSRCH101J50
	C3903,C3911	CKSRYB332K50
	C3904,C3912	CKSRYF473Z50

<u>RESISTORS</u>		
	R3901-R3904	RD1/2MMF100J

■

<u>OTHERS</u>		
	JA3901 SPEAKER TERMINAL	AKE1061

C

POWER SUPPLY UNIT
POWER SUPPLY Unit has no service part.

■

D

■

E

■

F

6. ADJUSTMENT



1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

6.1 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	(Clear the history data on the number of power-ons.) Refer to "7.1.7 HOW TO CLEAR HISTORY DATA."
HD DIGITAL Assy	➡	Writing of backup data is required. Refer to the "7.1.6 BACKUP WHEN THE MAIN UNIT IS ADJUSTED. "
50 X DRIVE Assy	➡	No adjustment required
50 Y DRIVE Assy	➡	No adjustment required
Service Panel	➡	Refer to the "6.3 METHOD FOR REPLACING THE SERVICE PANEL ASSY."
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

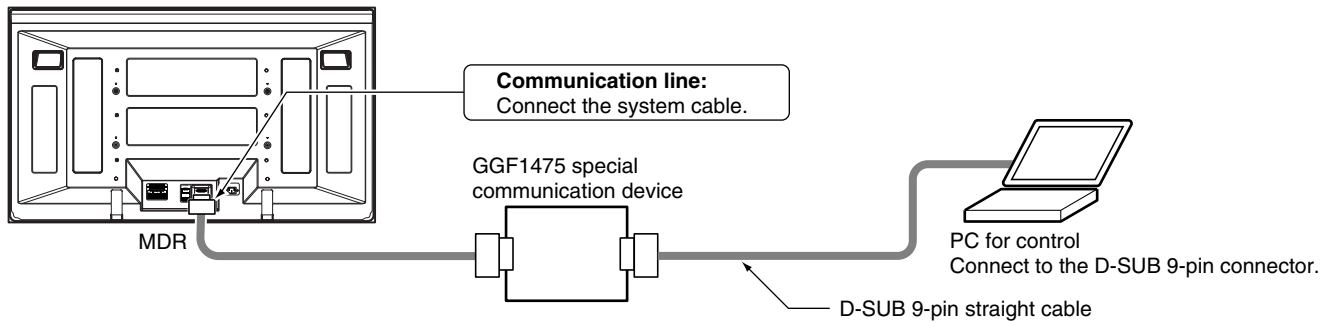
POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
HD DIGITAL Assy	➡	No adjustment required
50 X DRIVE Assy	➡	No adjustment required
50 Y DRIVE Assy	➡	No adjustment required
Other assemblies	➡	No adjustment required

6.2 RS-232C COMMAND

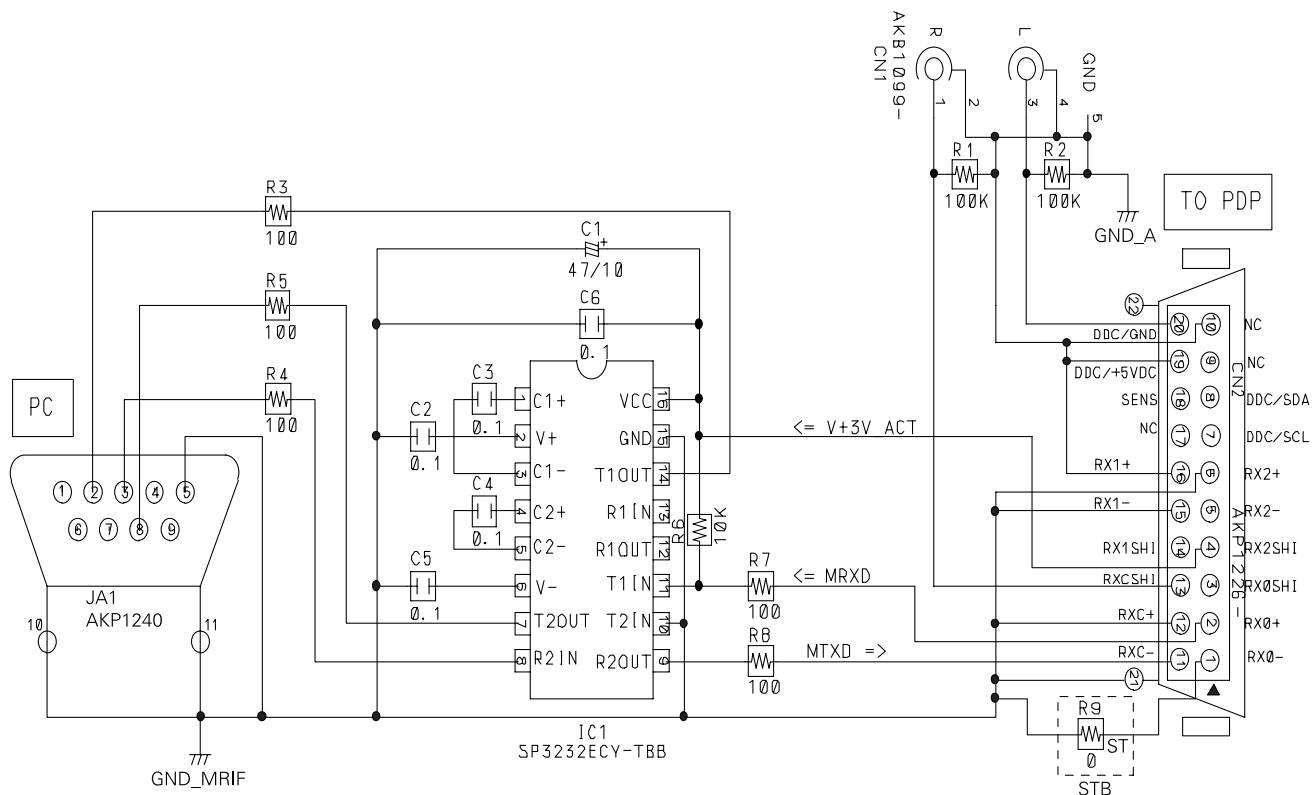
- The panel control items for the PDP-506PE, PU / PDP-436PE, PU systems can be controlled with the RS-232C commands by connecting a PC through the GGF1475 special communication device when the Media Receiver is not connected with the PDP.

Note: The special communication device for the PDP-503P cannot be used with this unit, because the control lines within the MDR cable are different.

1. Connection



• Schematic diagram of the special communication device



2. Command format

■ Communication protocol

Start bit : 1bit
Data : 8bit
Parity : 0 (none)
Stop bit : 1bit
Baud rate : 38400bps

■ Start and stop conditions

STX (start condition): 0x02
ETX (stop condition): 0x03

■ ID setting

No ID setting (corresponding to all ASCII codes)

■ Acknowledgement (ACK)

- Acknowledgement (ACK) will be sent back when the unit returns to Standby mode for the next command after the process of the received command is finished.
- The return data will be a received command in capital letters, but without an ID.

Example of communication: For a command listed on the command list

MR / External PC

STX	ID	Command	ETX
0x02	**	CBU	0x03



Returns from the PDP

STX	Command	ETX
0x02	CBU	0x03

- If a received command is not one listed on the command list, "ERR" (3 characters) will be sent back.

Example of communication: For a command that is not listed on the command list

MR / External PC

STX	ID	Command	ETX
0x02	**	AAA	0x03



Returns from the PDP

STX	Command	ETX
0x02	ERR	0x03

- If the operation of a received command is not possible in a certain status, "XXX" (3 characters) will be sent back.

Example of communication: If an adjustment command that gives an adjustment value out of the adjustable range is sent

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	VOL	128	0x03



Returns from the PDP

STX	Command	ETX
0x02	XXX	0x03

■ Error process

If an error is generated between STX and ETX, a return signal will not be issued.

3. Definition of various commands

■ Simple-function command

A simple-function command orders an operation that will conclude by itself, and it consists of 3 characters.

Example of communication:

MR / External PC

STX	ID	Command	ETX
0x02	**	CPD	0x03



Returns from the PDP

STX	Command	ETX
0x02	CPD	0x03

■ Adjustment command and adjustment value

An adjustment command is accompanied by an adjustment value and orders a change in the adjustment value, such as for the contrast adjustment.

- Adjustment command + adjustment value => The attached parameter will be the adjustment value.
- The adjustment value to be attached to an adjustment command consists of 3 characters in decimal, in the range of 000 to 999.

Example of communication:

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	CNT	128	0x03



Returns from the PDP

STX	Adjustment Command	Adjustment Value	ETX
0x02	CNT	128	0x03

- If the adjustment value of the received command is out of the adjustable range, "XXX" will be sent back, and the adjustment value will not be changed.
- If the adjustment value of the received command is the same as the current adjustment value, the adjustment value will be overwritten, and "XXX" will not be sent back.

■ Setup command and setup value

A setup command is accompanied by a setup value and orders a change in the setup value, such as for the mask setup.

- Setup command + setup value => The attached parameter will be the setup value.
- The setup value to be attached to a setup command consists of 3 characters in decimal, in the range of S00 to S99.

Example of communication:

MR / External PC

STX	ID	Adjustment Command	Adjustment Value	ETX
0x02	**	MKS	S02	0x03



Returns from the PDP

STX	Adjustment Command	Adjustment Value	ETX
0x02	MKS	S02	0x03

- If the setup value of the received command is out of the range, "XXX" will be sent back, and the setup value will not be changed.
- If the setup value of the received command is the same as the current setup value, the setup value will be overwritten, and "XXX" will not be sent back.

■ QUEST (acquiring status) command

If a QUEST command is received from the main unit's microcomputer, data for various adjustment values will be read from memory and sent back. The return data consist of the received command as an echo back, return data, and a checksum.

- Return data: A string of characters defined for each QUEST command is converted into ASCII codes and transmitted.
- The configuration and the data length of return data are defined for individual QUEST commands.

Example of communication:

MR / External PC

STX	ID	QST Command	ETX
0x02	**	QS1	0x03



Returns from the PDP

STX	QST Command	Return Data	Checksum	ETX
0x02	QS1	54AHM2**	7B	0x03

- Checksum (CS): A checksum is used for judging if any error exists in the data sent back from the panel. If an error is detected, it is possible to resend the QUEST command from the MR / External PC to try to acquire data again.

4. RS-232C command for module microcomputer

Command Name		Function		Effective only in Factory mode	Remarks
A					
ABL	***	ABL ADJUSTMENT	Adjusting the upper limit of the power	○	
AMT	S00	AUDIO MUTE OFF	Turning off the audio muting		
	S01	AUDIO MUTE ON	Turning on the audio muting		
APW	S00	APL WB FUNCTION:OFF	WB correction interlocked with APL: OFF	○	
	S01	APL WB FUNCTION:ON	WB correction interlocked with APL: ON	○	
B					
BAL	***	BALANCE ADJUSTMENT	Audio balance adjustment		
BAS	***	BASS ADJUSTMENT	Audio bass adjustment		
BCP		BACKUP COPY	Copying the backup data in the EEPROM	○	
C					
CBU		CLEAR BACKUP	Clearing backup data	○	
CHM		CLEAR HOUR METER	Clearing data of the hour meter	○	Used only when the panel is replaced
CPC		CLEAR POWER ON COUNT	Clearing power-on count data	○	Used only when the power unit is replaced
CPD		CLEAR POWER DOWN	Clearing power-down information	○	Used only when the panel is replaced
CPM		CLEAR PLUSE METER	Clearing data of the pulse meter	○	Used only when the panel is replaced
CSD		CLEAR SHUT DOWN	Clearing shutdown information	○	Used only when the panel is replaced
D					
DRV	S00	DRIVE OFF	Main power off		
	S01	DRIVE ON	Main power on		
E					
ESV	S00	POWER CONTROL NORMAL	Setting Power Consumption mode to 4-split normal curve		
	S01	POWER CONTROL MODE1	Setting Power Consumption mode to 2-split normal curve		
	S02	POWER CONTROL MODE2	Setting Power Consumption mode to 2-split power-saving curve		
	S10	POWER CONTROL NORMAL	Setting Power Consumption mode to 4-split normal curve (domestic)		
	S11	POWER CONTROL MODE1	Setting Power Consumption mode to 2-split normal curve (domestic)		
	S12	POWER CONTROL MODE2	Setting Power Consumption mode to 2-split power-saving curve (domestic)		
F					
FAJ		FINISH ADJUSTMENT	Determining the flag of the HD DIGITAL Assy adjustment in "adjustment is completed"	○	
FAN		FACTRY NO		○	
FAY		FACTRY YES	Entering Factory mode		Turning the mask setting off
FCS	S00	FOCUS OFF	Turning the FOCUS function off		
	S01	FOCUS ON	Turning the FOCUS function on		
M					
MKC	S00	MASK COMBINATION OFF	MASK off		
	S01	MASK COMBINATION 01	H ramp (slant 1) M	○	
	S02	MASK COMBINATION 02	H ramp (slant 4) M	○	
	S03	MASK COMBINATION 03	Slanting ramp M	○	
	S04	MASK COMBINATION 04	30 for aging	○	
	S05	MASK COMBINATION 05	05 for aging	○	
	S06	MASK COMBINATION 06	Erasing afterimage 1	○	
	S07	MASK COMBINATION 07	Erasing afterimage 2 (RGB: zigzag, V: reverse)	○	
	S08	MASK COMBINATION 08	White (change in luminance level)	○	
	S09	MASK COMBINATION 09	PEAK SEEK RASTER	○	
MKS	S00	MASK SINGLE OFF	MASK OFF		
	S01	MASK SINGLE 1	H ramp (slant 1)	○	
	S02	MASK SINGLE 2	H ramp (slant 4)	○	
	S03	MASK SINGLE 3	V ramp (slant 1)	○	
	S04	MASK SINGLE 4	Slanting ramp	○	

A

B

C

D

E

F

Command Name		Function		Effective only in Factory mode	Remarks
MKS	S05	MASK SINGLE 5	Window(Hi=870Lo=102)	○	
	S06	MASK SINGLE 6	Window(Hi=1023Lo=102)	○	
	S07	MASK SINGLE 7	Window(Hi=1023)	○	
	S08	MASK SINGLE 8	Window(Hi=1023)4%	○	
	S09	MASK SINGLE 9	Window(Hi=1023)1.25%	○	
	S10	MASK SINGLE 10	Window(1/7LINE)	○	
	S11	MASK SINGLE 11	STRIPE(MGT/GRN)	○	
	S12	MASK SINGLE 12	STRIPE(GRN/MGT)	○	
	S13	MASK SINGLE 13	B & W, checker (1 line)	○	
	S14	MASK SINGLE 14	B & W, checker (2 lines)	○	
	S15	MASK SINGLE 15	B & W, checker (4 lines)	○	
	S16	MASK SINGLE 16	B & W, checker (8 lines)	○	
	S17	MASK SINGLE 17	COLOR BAR	○	
	S18	MASK SINGLE 18	Slanting lines	○	
	S19	MASK SINGLE 19	Red & black, checker (1 line)	○	
	S20	MASK SINGLE 20	Red & black, checker (2 lines)	○	
	S21	MASK SINGLE 21	Red & black, checker (4 ines)	○	
	S22	MASK SINGLE 22	Red & black, checker (8 lines)	○	
S23	S23	MASK SINGLE 23	RGB zigzag, V reverse	○	
	S24	MASK SINGLE 24	SUS 2000 pulses (black raster)	○	
	S25	MASK SINGLE 25	Window(Hi=870Lo=102) PATTAN3	○	
	S26	MASK SINGLE 26	Window(Hi=1023Lo=102) PATTAN3	○	
	S27	MASK SINGLE 27	Window(Hi=1023) Pattern 3	○	
	S28	MASK SINGLE 28	Window(Hi=1023)4% Pattern 3	○	
	S29	MASK SINGLE 29	Window(Hi=1023)1.25% Pattern 3	○	
	S30	MASK SINGLE 30	Window(1/7LINE) Pattern 3	○	
	S51	MASK SINGLE 51	Raster - White	○	
	S52	MASK SINGLE 52	Raster - Red	○	
	S53	MASK SINGLE 53	Raster - Green	○	
	S54	MASK SINGLE 54	Raster - Blue	○	
	S55	MASK SINGLE 55	Raster - Black	○	
	S56	MASK SINGLE 56	Raster - Cyan	○	
	S57	MASK SINGLE 57	Raster - Magenta	○	
	S58	MASK SINGLE 58	Raster - Yellow	○	
	S59	MASK SINGLE 59	Raster - Cyan 460 :W	○	
S60	S60	MASK SINGLE 60	Raster - Green 774 :W	○	
	S61	MASK SINGLE 61	Raster - Gray 912 :W	○	
	S62	MASK SINGLE 62	Raster - Yellow egg color: W	○	
	S63	MASK SINGLE 63	Raster - Beige: W	○	
	S64	MASK SINGLE 64	Raster - Sky color: W	○	
	S65	MASK SINGLE 65	Raster - Pale purple: W	○	
	S66	MASK SINGLE 66	Raster - Magenta 54 :W	○	
	S67	MASK SINGLE 67	Raster - Red 588	○	
	S68	MASK SINGLE 68	Red 1023 + α	○	
	S69	MASK SINGLE 69	Green 1023 + α	○	
	S70	MASK SINGLE 70	Blue 1023 + α	○	
	S71	MASK SINGLE 71	Red 588 + α	○	
	S72	MASK SINGLE 72	Green 588 + α	○	
	S73	MASK SINGLE 73	Blue 588 + α	○	

Command Name		Function		Effective only in Factory mode	Remarks
MKS	S74	MASK SINGLE 74	Raster -Gray 512 (reservation)	○	
P					
PAV	S**	PANEL AV MODE	Switching panel functions interlocked with the AV selection		
PBH	***	PANEL BLUE HIGH	Panel white balance adjustment - Blue highlight	○	
PBL	***	PANEL BLUE LOW	Panel white balance adjustment - Blue low light	○	
PDM	S00	PD MUTE OFF	Passing PD signals to the Power SUPPLY Unit => Power-down		
	S01	PD MUTE ON	Not passing PD signals to the Power SUPPLY Unit => No power-down		
PFN		FACTORY NO	Factory mode: off	○	
PFS		PANEL FINAL SETUP	Setup at shipment	○	
PFY		FACTORY YES	Factory mode: on		
PGH	***	PANEL GREEN HIGH	Panel white balance adjustment - Green highlight	○	
PGL	***	PANEL GREEN LOW	Panel white balance adjustment - Green low light	○	
PGM	S**	PANEL GAMMA	Setting of the gamma table		
PMT	S00	MUTE OFF	Canceling panel muting		
	S01	MUTE ON	Panel muting		
POF		POWER OFF	Power off		
PON		POWER ON	Power on		
PPT	S00	PANEL PROTECT OFF	Panel protection: off	○	
	S01	PANEL PROTECT ON	Panel protection: on	○	
PUC	S00	PUER CINEMA:OFF	Pure cinema: off		
	S01	PUER CINEMA:STD	Pure cinema: standard		
	S02	PUER CINEMA:ADV	Pure cinema: advanced		
Q					
QAJ		QUEST ADJUSTMENT	Acquiring various adjustment values		
QIP		QUEST PANEL INFORMATION	Acquiring various input signal data		
QPD		QUEST POWER-DOWN	Acquiring logs of power-down points		
QPM		QUEST PULSE METER	Acquiring data of the pulse meter		
QPW		QUEST PANEL WHITE BALANCE	Acquiring panel white balance adjustment values		
QS1		QUEST STATUS 1	Acquiring data on the unit, such as the version of the program		
QS2		QUEST STATUS 2	Acquiring data on the status of the unit, such as temperature		
QSD		QUEST SHUT DOWN	Acquiring data on shutdown		
QSI		QUEST SIGNAL INFORMATION	Acquiring data related with signals		
R					
RBL	S**	PANEL REVISE BLUE LEVEL	Setting of blue level for panel degradation correction	○	
RGL	S**	PANEL REVISE GREEN LEVEL	Setting of green level for panel degradation correction	○	
RHI	***	RED HIGH	User white balance - Red highlight		
RLW	***	RED LOW	User white balance - Red low light		
RRL	S**	PANEL REVISE RED LEVEL	Setting of red level for panel degradation correction	○	
RSW	***	XY-RST-W ADJ	Adjustment of the width of XY reset pulse	○	
S					
SDM	S00	SD MUTE OFF	Shutdown enabled		
	S01	SD MUTE ON	Shutdown prohibited		
SFR	S01	SUS FREQUENCY MODE1	Measures against AM radio noise - Pattern 1	○	
	S02	SUS FREQUENCY MODE2	Measures against AM radio noise - Pattern 2	○	
	S03	SUS FREQUENCY MODE3	Measures against AM radio noise - Pattern 3	○	
	S04	SUS FREQUENCY MODE4	Measures against AM radio noise - Pattern 4	○	
	S05	SUS FREQUENCY MODE5	Measures against AM radio noise - Pattern 5	○	
	S06	SUS FREQUENCY MODE6	Measures against AM radio noise - Pattern 6	○	
	S07	SUS FREQUENCY MODE7	Measures against AM radio noise - Pattern 7	○	

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Command Name		Function		Effective only in Factory mode	Remarks
SFR	S08	SUS FREQUENCY MODE8	Measures against AM radio noise - Pattern 8	○	
SMM	S**	SIDE MASK MODE	Setting of the effective area during streaking correction	○	
SN0	***	SERIAL NO 0	Setting of the serial No. 0 (panel)	○	
SN1	***	SERIAL NO 1	Setting of the serial No. 1 (panel)	○	
SN2	***	SERIAL NO 2	Setting of the serial No. 2 (panel)	○	
SN3	***	SERIAL NO 3	Setting of the serial No. 3 (panel)	○	
SN4	***	SERIAL NO 4	Setting of the serial No. 4 (panel)	○	
SRS	S00	SRS OFF	SRS function: off		
	S01	SRS ON	SRS function: on		
SYS	S00	SYSTEM CABLE NO	Prohibiting monitoring of cable disconnection detection		
	S01	SYSTEM CABLE YES	Permitting monitoring of cable disconnection detection		
T					
TBS	S00	TRUBASS OFF	TruBass function: off		
	S01	TRUBASS ON	TruBass function: on		
TRE	***	TREBLE ADJUSTMENT	Audio treble adjustment		
U					
UAJ		UN-ADJUSTMENT	Determining the flag for the HD DIGITAL Assy adjustment in "not adjusted"	○	
V					
VFQ	S01	FREQUENCY VIDEO 48Hz	Setting the frequency in Mask mode to VD-48 Hz	○	
	S02	FREQUENCY VIDEO 50Hz	Setting the frequency in Mask mode to VD-50 Hz	○	
	S03	FREQUENCY VIDEO 60Hz	Setting the frequency in Mask mode to VD-60 Hz	○	
	S05	FREQUENCY THEATER 72Hz	Setting the frequency in Mask mode to VD-72 Hz	○	
	S06	FREQUENCY 75Hz	Setting the frequency in Mask mode to VD-75 Hz	○	
	S13	FREQUENCY PC 60Hz	Setting the frequency in Mask mode to PC-60 Hz	○	
	S14	FREQUENCY PC 70Hz	Setting the frequency in Mask mode to PC-70 Hz	○	
	S22	FREQUENCY VIDEO 50Hz NONSTD	Setting the frequency in Mask mode to VD-50 Hz (nonstandard)	○	
	S23	FREQUENCY VIDEO 60Hz NONSTD	Setting the frequency in Mask mode to VD-60 Hz (nonstandard)	○	
	S25	FREQUENCY VIDEO 72Hz NONSTD	Setting the frequency in Mask mode to VD-72 Hz (nonstandard)	○	
	S26	FREQUENCY VIDEO 75Hz NONSTD	Setting the frequency in Mask mode to VD-75 Hz (nonstandard)	○	
VOF	***	Vofs ADJUSTMENT	Adjustment of the reference value of Vofs voltage	○	
VOL	***	VOLUME	Audio volume adjustment		
VRP	***	Vrp ADJUSTMENT	Adjustment of the reference value of Vrst-p voltage	○	
VSU	***	Vsus ADJUSTMENT	Adjustment of the reference value of Vsus voltage	○	
W					
WBI	S00	WB INITIALIZE NO	Panel WB standard output mode: off	○	
WBI	S01	WB INITIALIZE YES	Panel WB standard output mode: on	○	
X					
XSB	***	X-SUS-B ADJ	X-SUS-B ADJ	○	
Y					
YSB	***	Y-SUS-B ADJ	Y-SUS-B ADJ	○	
YTG	***	Y-SUSTAIL ADJ	Y-SUSTAIL ADJ	○	
YTW	***	Y-SUSTAIL W AJD	Y-SUSTAIL W AJD	○	

5. QUEST commands (for acquiring status)

With a QUEST command, data on STBY/ON, PD, and SD can be obtained while the unit is on.

■ Acquisition of panel statuses ••• [QS1]

The command QS1 is for acquiring data necessary for authentication of both the main unit's microcomputer and the module's microcomputer.

Command Format	Effective Operation Modes	Function	Remarks
[QS1]	All operations	To acquire data on product status	Return data: 3 (ECO)+43(DATA)+2(CS)=48Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QS1
1	Resolution/size	1Byte	5
2	Generation	1Byte	6
3	Destination	1Byte	*
4	Grade	1Byte	*
5	Product type	1Byte	S
6	MDUcom-Boot	3Byte	01A
7	MDUcom-PRG	8Byte	001SM "space × 3"
8	SEQUENCE PROCESSOR-Boot	3Byte	01A
9	SEQUENCE PROCESSOR-Boot	8Byte	001AM "space × 3"
10	SQ-VIDEO(43/42)	4Byte	001X
11	SQ-PC(43/42)	4Byte	001X
12	SQ-VIDEO(50/61)	4Byte	001W
13	SQ-PC(50/61)	4Byte	001W
CS		2Byte	7B

● Resolution/size	
4	1024*768-43
5	1280*768-50

● Generation	
6	G6

● Destination	
*	Common

● Grade	
*	Common

● MDUcom/SEQUENCE PROCESSOR-Boot ••• 3Byte		
1st character	Representing the boot version in 2-digit decimal	
2nd character		
3rd character	A	When the boot version is common to 43/50
	X	When the boot version is only for 43
	W	When the boot version is only for 50

● Product type	
S	System model

● MDUcom/SEQUENCE PROCESSOR-PRG ••• 8Byte		
1st character	–	For a mass-production product
2nd character	For representing the version in 2-digit decimal	
3rd character		
4th character	A	When the program is common to 43/50 (for SEQUENCE PROCESSOR)
	S	When the program is only for another unit (for MDUcom)
5th character	M	Fixed
6th character		Reservation
7th character		Reservation
8th character		Reservation

● SEQUENCE-Data ••• 8Byte		
1st - 3rd characters	Num	For representing the version in 3-digit decimal
4th character	W	When the sequence data are only for 50
	X	When the sequence data are only for 43

- For the version indication, the bytes reserved for special use must be replaced with spaces if they are not used.

A

■ Acquisition of panel operation data ••• [QS2]

The command QS2 is for acquiring data on the panel's operations. Basically, this command is used for the module's microcomputer to inform the main unit's microcomputer of changes in panel operation.

Command Format	Effective Operation Modes	Function	Remarks
[QS2]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+23(DATA)+2(CS)=28Byte

B

Data Arrangement		Data Length	Output Example
ECO		3Byte	QS2
1	Notification of mode shifting to STB	1Byte	1
2	Flag for adjustment of the main unit	1Byte	0
3	Flag for adjustment-data backup	1Byte	0
4	"1st PD" data	1Byte	0
5	"2nd PD" data	1Byte	0
6	Reservation	3Byte	***
7	Temperature data (TEMP 1)	3Byte	128
8	SD main data	1Byte	0
9	SD subdata	1Byte	0
10	Operation status induced by SD	1Byte	0
11	Data from the hour meter	8Byte	00000259
12	MASK indication	1Byte	0
CS		2Byte	4A

C

Note : "00000259" of "Data from the hour meter" means 2 hours 59 minuts.

D

● Notification of mode shifting to Standby	
0	Entering Standby mode failed
1	Entering Standby mode succeeded

● Adjustment of the main unit	
0	Adjustment completed
1	Adjustment not completed

● Adjustment-data backup	
0	With backup data
1	No data

E

● PD data	
0	No PD data
1	Not used
2	POWER
3	SCAN
4	SCN-5V
5	Not used
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRV
A	X-DCDC
B	X-SUS
C	Not used
D	SQ-IC
E	Not used
F	Specification inability

● SD main data	
0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	Panel having high temperature
5	Short-circuited speaker

● SD subdata (IIC)	
0	No SD subdata
1	EEPROM
2	BACKUP
3	DAC
4	VOL IC
5	DVI

● Operation status induced by SD	
0	Normal
1	Relay-off completed
2	During warning indication

● MASK indication	
0	MASK-OFF
1	MASK-ON

F

■ Acquisition of other data on the panel ••• [QIP]

The command QIP is for acquiring data other than those available with QS1 (data necessary before turning the power on) and QS2 (data to inform of operational status change).

Command Format	Effective Operation Modes	Function	Remarks
[QIP]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+39(DATA)+2(CS)=44Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QIP
1	SERIAL	15Byte	-----
2	HOURLY METER	8Byte	00000000
3	BACKUP HR MTR	8Byte	00000000
4	PON COUNTER	8Byte	00000000
CS		2Byte	94

Note : The real product serial number is displayed in "SERIAL".

■ Acquisition of panel adjustment data (common data) ••• [QAJ]

The command QAJ is for acquiring data on the panel's factory-preset items that are common to the main unit and that share the same memory.

Command Format	Effective Operation Modes	Function	Remarks
[QAJ]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+27(DATA)+2(CS)=32Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QAJ
1	V-SUS adjustment value	3Byte	128
2	V-OFT adjustment value	3Byte	128
3	V-RST-P adjustment value	3Byte	128
4	XSB adjustment value	3Byte	128
5	YSB adjustment value	3Byte	128
6	YTG adjustment value	3Byte	128
7	YTW adjustment value	3Byte	128
8	RSW adjustment value	3Byte	128
9	R-RIVISE setting value	1Byte	0
10	G-RIVISE setting value	1Byte	0
11	B-RIVISE setting value	1Byte	0
CS		2Byte	B7

A

■ Acquisition of ABL/WB adjustment data ••• [QPW]

The command QPW is for acquiring data on the panel's factory-preset items whose memory tables are changed in sequence.

Command Format	Effective Operation Modes	Function	Remarks
[QPW]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+35(DATA)+2(CS)=40Byte

B

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPW
1	Drive sequence	3Byte	60V
2	Standard/nonstandard	1Byte	S
3	Type of ABL/WB tables	2Byte	T2
4	ABL adjustment value	3Byte	128
5	R-HIGH adjustment value	3Byte	256
6	G-HIGH adjustment value	3Byte	256
7	B-HIGH adjustment value	3Byte	256
8	R-LOW adjustment value	3Byte	512
9	G-LOW adjustment value	3Byte	512
10	B-LOW adjustment value	3Byte	512
11	Gamma setting	1Byte	A
12	Streaking correction	1Byte	1
13	Peripheral luminance correction	1Byte	0
14	Reservation	1Byte	*
15	WB interlocked with APL	1Byte	0
16	Transition of protective operations	1Byte	0
17	Reservation	2Byte	**
CS		2Byte	37

● Drive sequence	
48V	Video48 Hz
50V	Video50 Hz
60V	Video60 Hz
72V	Video72 Hz
75V	Video75 Hz
60P	PC60Hz
70P	PC70Hz

● Setting for Items 12 and 15	
0	OFF
1	ON

● Peripheral luminance correction	
0	OFF
2	ON (interlocked with APL)

● Standard/nonstandard	
S	Standard
N	Nonstandard

● Transition of brightness by protective operations	
0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

● Gamma setting	
n	0 to F

● Type of ABL/WB tables	
Tn	n: 1 to 4

C

D

■ Acquisition of parameters ••• [QPM]

The command QPM is for acquiring the accumulated number of pulses for each of 5 blocks from the EEPROM.

Command Format	Effective Operation Modes	Function	Remarks
[QPM]	All operations	To acquire data on operations of the panel	Return data: 3 (ECO)+40(DATA)+2(CS)=45Byte

E

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPM
1	Pulse meter B 1	8Byte	00000000
2	Pulse meter B 2	8Byte	00000000
3	Pulse meter B 3	8Byte	00000000
4	Pulse meter B 4	8Byte	00000000
5	Pulse meter B 5	8Byte	00000000
CS		2Byte	E7

F

- The output data on the accumulated number of pulses for each block are calculated in the following way: the high-order 4 bytes of the accumulated number of pulses for each block are converted into a decimal number, and the high-order 8 digits are transmitted. The unit of each block is M_pulse (mega).

■ Acquisition of PD logs ••• [QPD]

The command QPD is for acquiring data from the 8 latest power-down (PD) logs.

Command Format	Effective Operation Modes	Function	Remarks
[QPD]	All operations	To acquire data on the power-down logs	Return data: 3 (ECO)+80(DATA)+2(CS)=85Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QPD
1	Latest "1st PD" data	1byte	A
2	Latest "2nd PD" data	1byte	2
3	Data from the hour meter for the latest PD	8byte	00010020
4	Second latest "1st PD" data	1byte	E
5	Second latest "2nd PD" data	1byte	9
6	Data from the hour meter for the second latest PD	8byte	00008523
7	Third latest "1st PD" data	1byte	4
8	Third latest "2nd PD" data	1byte	3
9	Data from the hour meter for the third latest PD	8byte	00004335
10	Fourth latest "1st PD" data	1byte	2
11	Fourth latest "2nd PD" data	1byte	0
12	Data from the hour meter for the fourth latest PD	8byte	00000945
13	Fifth latest "1st PD" data	1byte	4
14	Fifth latest "2nd PD" data	1byte	0
15	Data from the hour meter for the fifth latest PD	8byte	00000715
16	Sixth latest "1st PD" data	1byte	A
17	Sixth latest "2nd PD" data	1byte	2
18	Data from the hour meter for the sixth latest PD	8byte	00000552
19	Seventh latest "1st PD" data	1byte	A
20	Seventh latest "2nd PD" data	1byte	0
21	Data from the hour meter for the seventh latest PD	8byte	00000213
22	Eighth latest "1st PD" data	1byte	D
23	Eighth latest "2nd PD" data	1byte	0
24	Data from the hour meter for the eighth latest PD	8byte	000001A7
CS		2Byte	27

● PD data	
0	No PD
1	Not used
2	P-POWER
3	SCAN
4	SCN-5V
5	Not used
6	Y-DCDC
7	Y-SUS
8	Address
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	QS (driving stopped)
E	Not used
F	Specification inability

■ Acquisition of SD logs ••• [QSD]

The command QSD is for acquiring the data from the 8 latest shutdown (SD) logs.

Command Format	Effective Operation Modes	Function	Remarks
[QSD]	All operations	To acquire data on the shutdown logs	Return data: 3 (ECO)+80(DATA)+2(CS)=85Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QSD
1	Latest SD data	1byte	1
2	Latest SD subcategory data	1byte	0
3	Data from the hour meter for the latest SD	8byte	00752013
4	Second latest SD data	1byte	5
5	Second latest SD subcategory data	1byte	0
6	Data from the hour meter for the second latest SD	8byte	00495204
7	Third latest SD data	1byte	2
8	Third latest SD subcategory data	1byte	3
9	Data from the hour meter for the third latest SD	8byte	00100355
10	Fourth latest SD data	1byte	2
11	Fourth latest SD subcategory data	1byte	5
12	Data from the hour meter for the fourth latest SD	8byte	00075620
13	Fifth latest SD data	1byte	1
14	Fifth latest SD subcategory data	1byte	0
15	Data from the hour meter for the fifth latest SD	8byte	00000852
16	Sixth latest SD data	1byte	2
17	Sixth latest SD subcategory data	1byte	5
18	Data from the hour meter for the sixth latest SD	8byte	000000451
19	Seventh latest SD data	1byte	0
20	Seventh latest SD subcategory data	1byte	0
21	Data from the hour meter for the seventh latest SD	8byte	00000000
22	Eighth latest SD data	1byte	0
23	Eighth latest SD subcategory data	1byte	0
24	Data from the hour meter for the eighth latest SD	8byte	00000000
CS		2Byte	7D

● SD data

0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	Panel having high temperature
5	Short-circuited speaker

● SD subcategory

0	No SD subcategory
1	EEPROM
2	BACKUP
3	DAC
4	VOL-IC
5	DVI
6	Not used

■ Acquisition of input signal data ••• [QSI]

The command QSI is for acquiring all data on input video signals.

Command Format	Effective Operation Modes	Function	Remarks
[QSI]	All operations	To acquire all data on input video signals	Return data: 3 (ECO)+66(DATA)+2(CS)=71Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QSI
1	Type of drive sequence	3byte	60V
2	Standard/nonstandard	1byte	S
3	Type of ABL/WB tables	2byte	T1
4	Total value of PCN	4byte	0256
5	Total value of PRH	4byte	0256
6	Total value of PGH	4byte	0256
7	Total value of PBH	4byte	0256
8	Total value of PBR	4byte	0512
9	Total value of PRL	4byte	0512
10	Total value of PGL	4byte	0512
11	Total value of PBL	4byte	0512
12	Reservation	2byte	**
13	Detection of existence of H	1byte	Y
14	Detection of V frequency	4byte	6002
15	Reservation	4byte	****
16	Obtained APL data	4byte	1023
17	Number of SUS pulses	4byte	0457
18	Result of detection of still picture	1byte	1
19	Result of detection of cracking in the panel	1byte	1
20	Result of detection for scanning protection	1byte	1
21	Result of detection for external protection	1byte	1
22	Transition of protection operation	1byte	0
23	Reservation	4byte	****
CS		2Byte	27

● Detection of existence of H

N	No H
Y	H detected

● Transition of brightness by protection operation

0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

- If data for an item cannot be obtained during Standby mode, the return data for that item will be "*."
- The types of data for Items 1-3 in the table (drive sequence, standard/nonstandard, and type of ABL/WB tables) are the same as with the command QPW.
- Each total value for Items 4-11 represents that of panel WB, user WB, and degradation correction, and the actual data being sent to the ASTRA are output.
- Detection of V frequency: The V signal input to the panel is measured in the range of 30.51 to 99.99 Hz. The measured value is multiplied by 100 and then output.
- Number of SUS pulses : The number is calculated from data from APL and the drive sequence. The output value must be between 0174 and 2752.
- APL value: The APL value for the input video signal (or mask indication) will be output in the range of 0000 to 1023.

A

■ Setting for Factory mode permission/prohibition • • • [FAY/FAN] [PFY/PFN]

The commands FAY/FAN and PFY/PFN are for prohibiting/permitting panel-adjustment commands during normal operation and are to be used to avoid accidental change of panel adjustment values.

Command Format	Operation		Remarks
	Effective Operation Modes	Control (by the microcomputer itself)	
[FAY]	Normal operation mode while the power is on	Adjustment mode: ON	Mask indications will be forcibly turned off.
[PFY]			With a PFY command, the mask does not change.
[FAN]	During FAY	Adjustment mode: OFF	
[PFN]			

B

- Commands that are effective during normal operation will also be effective during FAY (PFY) mode.

Note:

- The functions shown below will be forcibly switched when Mask ON/OFF is switched. (Even if the panel is off, changed settings will be retained.)
While the status of Mask ON or OFF is maintained, if settings for the individual functions shown in ① and ② are changed, those settings are retained (even if the drive frequency is changed).

C

① Functions related to picture quality

Function	Setting while Mask is ON	Setting while Mask is OFF	Remarks
Peripheral luminance correction	OFF	ON	
WB correction interlocked with APL	OFF	ON	
Streaking correction	OFF	ON	

D

② Functions related to panel protection

Function	Setting while Mask is ON	Setting while Mask is OFF	Remarks
Detection of still picture	OFF	ON	
Detection of cracking in the panel	OFF	ON	
Scanning protection	OFF	ON	

- Depending on the type of mask displayed, phosphor burn of the panel may occur. As the panel-protection function is forcibly turned off with this model, care must be taken when color-bar signals are to be displayed for an extended period.

E

F

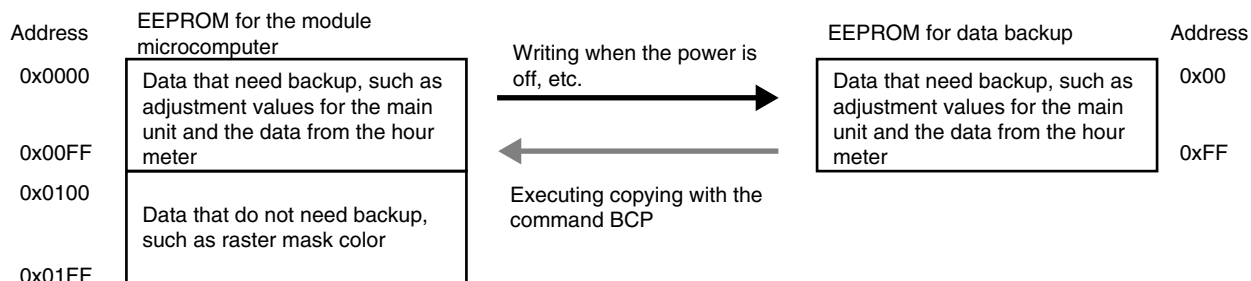
■ Backup function for adjustment values for the main unit • • • [FAJ/UAJ/CBU/BCP]

When the HD DIGITAL Assy is to be replaced, adjustment values can be copied from the backup EEPROM to the EEPROM of the Assy for service.

Command Format	Operation		Remarks
	Effective Operation Modes	Control (by the microcomputer itself)	
[FAJ]	During FAY	To make the flag setting that indicating that adjustment of the main unit has been completed	Writing 00 to the 4-kbyte ROM and copying to the 2-kbyte ROM
[UAJ]		To make the flag setting that indicating that adjustment of the main unit has not been completed	Writing F0 to the 4-kbyte ROM
[CBU]		To make the flag setting that indicating that backup data have not been copied	Writing F0 to the 2-kbyte ROM
[BCP]		To make the flag setting that indicating that backup data have been copied	Copying backup data

When the flag indicating that the line adjustments (SUS waveform, voltage margin, and panel WB) for the main unit have been completed is set to on, data stored from Addresses 0x0000 to 0x00FF in the digital EEPROM are copied to the same addresses of the backup EEPROM. Copying will be executed immediately before the relay of normal operation is off.

- When the command BCP is received while a warning indicating that backup copying has not been completed is displayed (conditions: main EEPROM = not adjusted, and backup EEPROM = adjusted), backed-up data will be copied to the main EEPROM, and various adjustment values related to Factory mode will be readjusted. Then LED warning indication will be shut off, and normal LED indication will be restored.
- If the backup EEPROM has not been adjusted when the command BCP is received (0x0063 is not written to all three addresses of the key data), copying of the backup data is not possible, and "XXX" is returned.



Note:

- When the command FAJ, UAJ, or CBU is executed, only high-order one-byte (0x00 or 0xF0) key data will be written to the EEPROM, and lower-order one-byte (0x63) data will not be changed.
- It takes at least 350 ms from reception of the command FAJ until an echo is sent back, because data are copied to the backup EEPROM.

■ Factory presetting • • • [PFS]

Command Format	Operation		Remarks
	Effective Operation Modes	Control (by the microcomputer itself)	
[PFS]	During FAY	Initialized to factory-preset values	

- When this command is executed, the values not stored in the EEPROM are initialized, mask indication is set to OFF, control of the power for line aging is set to OFF, and detection of the system cable is set to ON.

■ Conversion charts for electronic VRs: Conversion chart for the Vofs

Conversion chart for the Vofs (Commands vs. Common voltage values for the 50-inch and 43-inch models)

Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes	Command	Voltage value [V] for common sizes
VOF000	14.09	VOF056	24.55	VOF112	35.01	VOF168	45.47	VOF224	55.93
VOF001	14.28	VOF057	24.74	VOF113	35.20	VOF169	45.66	VOF225	56.12
VOF002	14.46	VOF058	24.92	VOF114	35.38	VOF170	45.85	VOF226	56.31
VOF003	14.65	VOF059	25.11	VOF115	35.57	VOF171	46.03	VOF227	56.49
VOF004	14.84	VOF060	25.30	VOF116	35.76	VOF172	46.22	VOF228	56.68
VOF005	15.02	VOF061	25.48	VOF117	35.95	VOF173	46.41	VOF229	56.87
VOF006	15.21	VOF062	25.67	VOF118	36.13	VOF174	46.59	VOF230	57.05
VOF007	15.40	VOF063	25.86	VOF119	36.32	VOF175	46.78	VOF231	57.24
VOF008	15.58	VOF064	26.04	VOF120	36.51	VOF176	46.97	VOF232	57.43
VOF009	15.77	VOF065	26.23	VOF121	36.69	VOF177	47.15	VOF233	57.61
VOF010	15.96	VOF066	26.42	VOF122	36.88	VOF178	47.34	VOF234	57.80
VOF011	16.14	VOF067	26.61	VOF123	37.07	VOF179	47.53	VOF235	57.99
VOF012	16.33	VOF068	26.79	VOF124	37.25	VOF180	47.71	VOF236	58.17
VOF013	16.52	VOF069	26.98	VOF125	37.44	VOF181	47.90	VOF237	58.36
VOF014	16.70	VOF070	27.17	VOF126	37.63	VOF182	48.09	VOF238	58.55
VOF015	16.89	VOF071	27.35	VOF127	37.81	VOF183	48.27	VOF239	58.73
VOF016	17.08	VOF072	27.54	VOF128	38.00	VOF184	48.46	VOF240	58.92
VOF017	17.27	VOF073	27.73	VOF129	38.19	VOF185	48.65	VOF241	59.11
VOF018	17.45	VOF074	27.91	VOF130	38.37	VOF186	48.83	VOF242	59.30
VOF019	17.64	VOF075	28.10	VOF131	38.56	VOF187	49.02	VOF243	59.48
VOF020	17.83	VOF076	28.29	VOF132	38.75	VOF188	49.21	VOF244	59.67
VOF021	18.01	VOF077	28.47	VOF133	38.93	VOF189	49.39	VOF245	59.86
VOF022	18.20	VOF078	28.66	VOF134	39.12	VOF190	49.58	VOF246	60.04
VOF023	18.39	VOF079	28.85	VOF135	39.31	VOF191	49.77	VOF247	60.23
VOF024	18.57	VOF080	29.03	VOF136	39.49	VOF192	49.96	VOF248	60.42
VOF025	18.76	VOF081	29.22	VOF137	39.68	VOF193	50.14	VOF249	60.60
VOF026	18.95	VOF082	29.41	VOF138	39.87	VOF194	50.33	VOF250	60.79
VOF027	19.13	VOF083	29.59	VOF139	40.05	VOF195	50.52	VOF251	60.98
VOF028	19.32	VOF084	29.78	VOF140	40.24	VOF196	50.70	VOF252	61.16
VOF029	19.51	VOF085	29.97	VOF141	40.43	VOF197	50.89	VOF253	61.35
VOF030	19.69	VOF086	30.15	VOF142	40.62	VOF198	51.08	VOF254	61.54
VOF031	19.88	VOF087	30.34	VOF143	40.80	VOF199	51.26	VOF255	61.72
VOF032	20.07	VOF088	30.53	VOF144	40.99	VOF200	51.45		
VOF033	20.25	VOF089	30.71	VOF145	41.18	VOF201	51.64		
VOF034	20.44	VOF090	30.90	VOF146	41.36	VOF202	51.82		
VOF035	20.63	VOF091	31.09	VOF147	41.55	VOF203	52.01		
VOF036	20.81	VOF092	31.28	VOF148	41.74	VOF204	52.20		
VOF037	21.00	VOF093	31.46	VOF149	41.92	VOF205	52.38		
VOF038	21.19	VOF094	31.65	VOF150	42.11	VOF206	52.57		
VOF039	21.37	VOF095	31.84	VOF151	42.30	VOF207	52.76		
VOF040	21.56	VOF096	32.02	VOF152	42.48	VOF208	52.94		
VOF041	21.75	VOF097	32.21	VOF153	42.67	VOF209	53.13		
VOF042	21.94	VOF098	32.40	VOF154	42.86	VOF210	53.32		
VOF043	22.12	VOF099	32.58	VOF155	43.04	VOF211	53.50		
VOF044	22.31	VOF100	32.77	VOF156	43.23	VOF212	53.69		
VOF045	22.50	VOF101	32.96	VOF157	43.42	VOF213	53.88		
VOF046	22.68	VOF102	33.14	VOF158	43.60	VOF214	54.06		
VOF047	22.87	VOF103	33.33	VOF159	43.79	VOF215	54.25		
VOF048	23.06	VOF104	33.52	VOF160	43.98	VOF216	54.44		
VOF049	23.24	VOF105	33.70	VOF161	44.16	VOF217	54.63		
VOF050	23.43	VOF106	33.89	VOF162	44.35	VOF218	54.81		
VOF051	23.62	VOF107	34.08	VOF163	44.54	VOF219	55.00		
VOF052	23.80	VOF108	34.26	VOF164	44.72	VOF220	55.19		
VOF053	23.99	VOF109	34.45	VOF165	44.91	VOF221	55.37		
VOF054	24.18	VOF110	34.64	VOF166	45.10	VOF222	55.56		
VOF055	24.36	VOF111	34.82	VOF167	45.29	VOF223	55.75		

■ Conversion charts for electronic VRs: Conversion chart for the Vyprst (1/2)

A

Conversion chart for the Vyprst (Commands vs. Voltage values for the 50-inch and 43-inch models)

B

C

D

E

F

Command	Voltage [V]		Command	Voltage [V]		Command	Voltage [V]	
	50-inch Model	43-inch Model		50-inch Model	43-inch Model		50-inch Model	43-inch Model
VRP000	246.3	236.3	VRP056	270.6	260.6	VRP112	294.9	284.9
VRP001	246.7	236.7	VRP057	271.0	261.0	VRP113	295.4	285.4
VRP002	247.1	237.1	VRP058	271.5	261.5	VRP114	295.8	285.8
VRP003	247.6	237.6	VRP059	271.9	261.9	VRP115	296.2	286.2
VRP004	248.0	238.0	VRP060	272.3	262.3	VRP116	296.7	286.7
VRP005	248.4	238.4	VRP061	272.8	262.8	VRP117	297.1	287.1
VRP006	248.9	238.9	VRP062	273.2	263.2	VRP118	297.5	287.5
VRP007	249.3	239.3	VRP063	273.6	263.6	VRP119	298.0	288.0
VRP008	249.7	239.7	VRP064	274.1	264.1	VRP120	298.4	288.4
VRP009	250.2	240.2	VRP065	274.5	264.5	VRP121	298.8	288.8
VRP010	250.6	240.6	VRP066	274.9	264.9	VRP122	299.3	289.3
VRP011	251.0	241.0	VRP067	275.4	265.4	VRP123	299.7	289.7
VRP012	251.5	241.5	VRP068	275.8	265.8	VRP124	300.1	290.1
VRP013	251.9	241.9	VRP069	276.2	266.2	VRP125	300.6	290.6
VRP014	252.4	242.4	VRP070	276.7	266.7	VRP126	301.0	291.0
VRP015	252.8	242.8	VRP071	277.1	267.1	VRP127	301.4	291.4
VRP016	253.2	243.2	VRP072	277.5	267.5	VRP128	301.9	291.9
VRP017	253.7	243.7	VRP073	278.0	268.0	VRP129	302.3	292.3
VRP018	254.1	244.1	VRP074	278.4	268.4	VRP130	302.7	292.7
VRP019	254.5	244.5	VRP075	278.9	268.9	VRP131	303.2	293.2
VRP020	255.0	245.0	VRP076	279.3	269.3	VRP132	303.6	293.6
VRP021	255.4	245.4	VRP077	279.7	269.7	VRP133	304.0	294.0
VRP022	255.8	245.8	VRP078	280.2	270.2	VRP134	304.5	294.5
VRP023	256.3	246.3	VRP079	280.6	270.6	VRP135	304.9	294.9
VRP024	256.7	246.7	VRP080	281.0	271.0	VRP136	305.3	295.3
VRP025	257.1	247.1	VRP081	281.5	271.5	VRP137	305.8	295.8
VRP026	257.6	247.6	VRP082	281.9	271.9	VRP138	306.2	296.2
VRP027	258.0	248.0	VRP083	282.3	272.3	VRP139	306.7	296.7
VRP028	258.4	248.4	VRP084	282.8	272.8	VRP140	307.1	297.1
VRP029	258.9	248.9	VRP085	283.2	273.2	VRP141	307.5	297.5
VRP030	259.3	249.3	VRP086	283.6	273.6	VRP142	308.0	298.0
VRP031	259.7	249.7	VRP087	284.1	274.1	VRP143	308.4	298.4
VRP032	260.2	250.2	VRP088	284.5	274.5	VRP144	308.8	298.8
VRP033	260.6	250.6	VRP089	284.9	274.9	VRP145	309.3	299.3
VRP034	261.0	251.0	VRP090	285.4	275.4	VRP146	309.7	299.7
VRP035	261.5	251.5	VRP091	285.8	275.8	VRP147	310.1	300.1
VRP036	261.9	251.9	VRP092	286.2	276.2	VRP148	310.6	300.6
VRP037	262.3	252.3	VRP093	286.7	276.7	VRP149	311.0	301.0
VRP038	262.8	252.8	VRP094	287.1	277.1	VRP150	311.4	301.4
VRP039	263.2	253.2	VRP095	287.5	277.5	VRP151	311.9	301.9
VRP040	263.6	253.6	VRP096	288.0	278.0	VRP152	312.3	302.3
VRP041	264.1	254.1	VRP097	288.4	278.4	VRP153	312.7	302.7
VRP042	264.5	254.5	VRP098	288.8	278.8	VRP154	313.2	303.2
VRP043	264.9	254.9	VRP099	289.3	279.3	VRP155	313.6	303.6
VRP044	265.4	255.4	VRP100	289.7	279.7	VRP156	314.0	304.0
VRP045	265.8	255.8	VRP101	290.1	280.1	VRP157	314.5	304.5
VRP046	266.3	256.3	VRP102	290.6	280.6	VRP158	314.9	304.9
VRP047	266.7	256.7	VRP103	291.0	281.0	VRP159	315.3	305.3
VRP048	267.1	257.1	VRP104	291.4	281.4	VRP160	315.8	305.8
VRP049	267.6	257.6	VRP105	291.9	281.9	VRP161	316.2	306.2
VRP050	268.0	258.0	VRP106	292.3	282.3	VRP162	316.6	306.6
VRP051	268.4	258.4	VRP107	292.8	282.8	VRP163	317.1	307.1
VRP052	268.9	258.9	VRP108	293.2	283.2	VRP164	317.5	307.5
VRP053	269.3	259.3	VRP109	293.6	283.6	VRP165	317.9	307.9
VRP054	269.7	259.7	VRP110	294.1	284.1	VRP166	318.4	308.4
VRP055	270.2	260.2	VRP111	294.5	284.5	VRP167	318.8	308.8

■ Conversion charts for electronic VRs: Conversion chart for the Vyprst (2/2)

Conversion chart for the Vyprst (Commands vs. Voltage values for the 50-inch and 43-inch models)					
Command	Voltage [V]		Command	Voltage [V]	
	50-inch Model	43-inch Model		50-inch Model	43-inch Model
VRP168	319.2	309.2	VRP224	343.6	333.6
VRP169	319.7	309.7	VRP225	344.0	334.0
VRP170	320.1	310.1	VRP226	344.4	334.4
VRP171	320.6	310.6	VRP227	344.9	334.9
VRP172	321.0	311.0	VRP228	345.3	335.3
VRP173	321.4	311.4	VRP229	345.7	335.7
VRP174	321.9	311.9	VRP230	346.2	336.2
VRP175	322.3	312.3	VRP231	346.6	336.6
VRP176	322.7	312.7	VRP232	347.1	337.1
VRP177	323.2	313.2	VRP233	347.5	337.5
VRP178	323.6	313.6	VRP234	347.9	337.9
VRP179	324.0	314.0	VRP235	348.4	338.4
VRP180	324.5	314.5	VRP236	348.8	338.8
VRP181	324.9	314.9	VRP237	349.2	339.2
VRP182	325.3	315.3	VRP238	349.7	339.7
VRP183	325.8	315.8	VRP239	350.1	340.1
VRP184	326.2	316.2	VRP240	350.5	340.5
VRP185	326.6	316.6	VRP241	351.0	341.0
VRP186	327.1	317.1	VRP242	351.4	341.4
VRP187	327.5	317.5	VRP243	351.8	341.8
VRP188	327.9	317.9	VRP244	352.3	342.3
VRP189	328.4	318.4	VRP245	352.7	342.7
VRP190	328.8	318.8	VRP246	353.1	343.1
VRP191	329.2	319.2	VRP247	353.6	343.6
VRP192	329.7	319.7	VRP248	354.0	344.0
VRP193	330.1	320.1	VRP249	354.4	344.4
VRP194	330.5	320.5	VRP250	354.9	344.9
VRP195	331.0	321.0	VRP251	355.3	345.3
VRP196	331.4	321.4	VRP252	355.7	345.7
VRP197	331.8	321.8	VRP253	356.2	346.2
VRP198	332.3	322.3	VRP254	356.6	346.6
VRP199	332.7	322.7	VRP255	357.0	347.0
VRP200	333.2	323.2			
VRP201	333.6	323.6			
VRP202	334.0	324.0			
VRP203	334.5	324.5			
VRP204	334.9	324.9			
VRP205	335.3	325.3			
VRP206	335.8	325.8			
VRP207	336.2	326.2			
VRP208	336.6	326.6			
VRP209	337.1	327.1			
VRP210	337.5	327.5			
VRP211	337.9	327.9			
VRP212	338.4	328.4			
VRP213	338.8	328.8			
VRP214	339.2	329.2			
VRP215	339.7	329.7			
VRP216	340.1	330.1			
VRP217	340.5	330.5			
VRP218	341.0	331.0			
VRP219	341.4	331.4			
VRP220	341.8	331.8			
VRP221	342.3	332.3			
VRP222	342.7	332.7			
VRP223	343.1	333.1			

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 PCB LOCATION

A

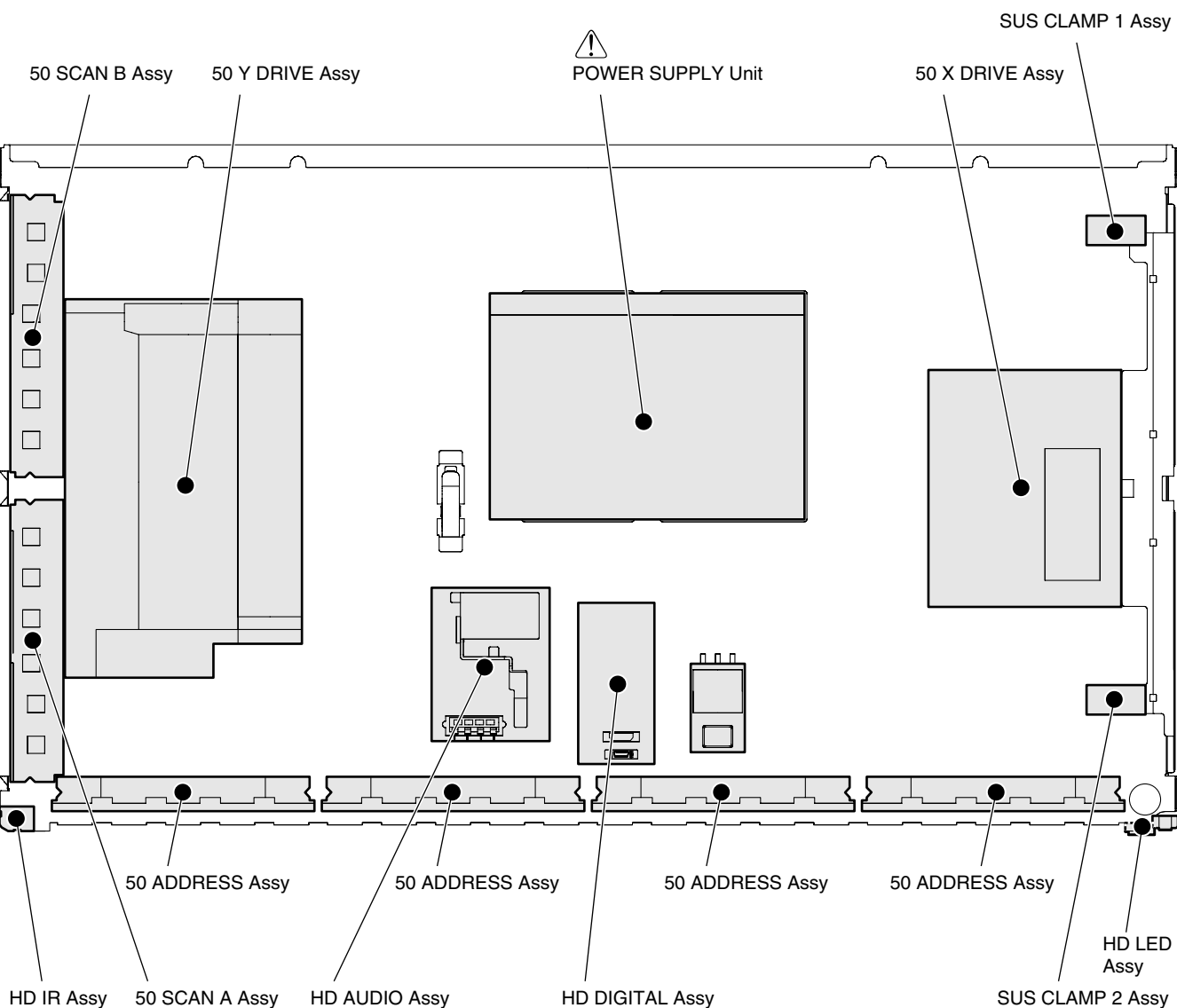
B

C

D

E

F



• Operation statuses indicated by LEDs

Status	LED Pattern			
Standby	1	Lit in Red	Blue Red	
Power ON	2	Lit in Blue	Blue Red	
AC Power OFF of one side	3	Red flashes (1000ms)	Blue Red	
System cable disconnection	4	Red and blue flash (1000ms)	Blue Red	
Power-down	5	Red flashes (500+2500ms)	Blue Red	
Shutdown	6	Blue flashes (500+2500ms)	Blue Red	
No backup copy	7	Lit in Red and blue flashes (200ms)	Blue Red	

: Lit in Red LED
 : Lit in Blue LED

• PD (power-down) count

1	Not used
2	POWER SUPPLY Unit
3	SCAN Assy
4	5V power supply for SCAN
5	Y-DRIVE (Not used)
6	DCDC for Y drive
7	Y-SUS
8	ADDRESS Assy
9	X-DRIVE
10	DCDC for X drive
11	X-SUS
12	Not used
13	Sequence drive stop
14	Not used
15	UNKNOWN

• SD (shut down) count

1	SEQUENCE PROCESSOR (SQ_IC)
2	MDU-IIC
3	RST2 abnormality
4	Panel high temperature
5	Speaker short-circuit *

* When a jumper (J105) between the HD AUDIO Assy and the POWER SUPPLY Unit is disconnected, the SD LED flashes five times in this manner.

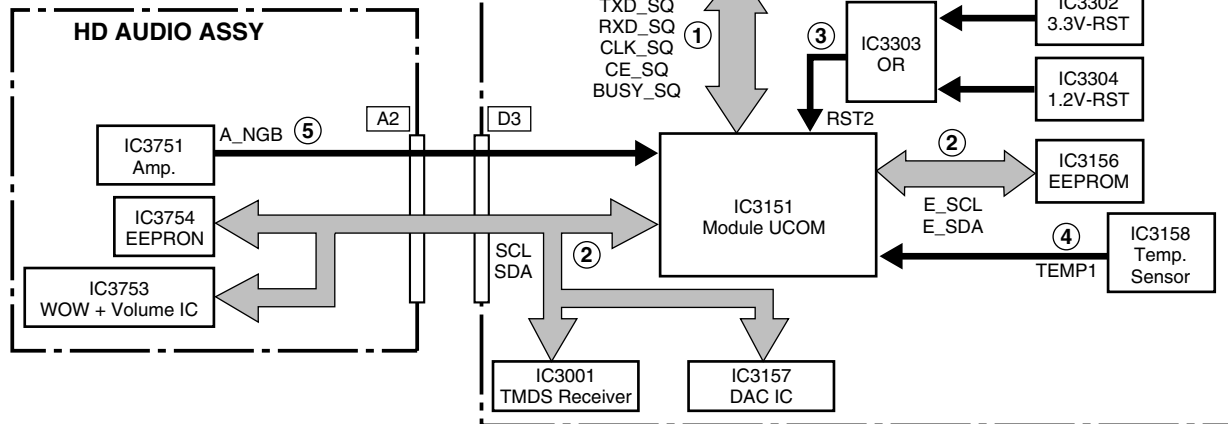
Note:

- When a shutdown occurs, a warning will be issued by the Media Receiver and displayed, then the power will be shut off.
- When a shutdown or power-down occurs on the Panel side, the Media Receiver will enter Standby mode (the red LED will light).

• Block diagram of the shutdown signal

Note:

The figures ① - ⑤ indicate the number of times the LED flashes when shutdown occurs in the corresponding route.



• Diagnosis of shutdown

Number of flashes	SD Circuit in Operation	Defective Assy	Reason for Shutdown	Point to be Checked	Possible Defective Part	Remarks
1 time	Communication failure of the driving processor	HD DIGITAL	Communication failure of IC3401	SQ ASIC BLOCK, PANEL FLASH BLOCK	IC3401, IC3301	Check if version data can be read, using the "GS1" command, after the power is turned on again.
			Writing failure of IC3401			
2 times	Communication failure of the IIC line (Check the SD subcategory on the Factory Menu.)	HD DIGITAL	Communication failure of the EEPROM (for retaining 4-Kbyte of data)	MODULE UCOM BLOCK	IC3156, IC3157	Check if the connectors are disconnected or are not connected securely.
		HD AUDIO	Communication failure of the EEPROM (2-kbyte : for backup)	TMDs BLOCK	IC3001	
			Disconnection of connectors	AUDIO AMP BLOCK	IC3754	
			Defective volume IC	HD AUDIO Assy	IC3753	
			Defective DC-DC converter	DIGITAL DD CON BLOCK	U3601	
3 times	Power failure of the driving processor (RST2)	HD DIGITAL	Defective RST IC	PANEL FLASH BLOCK	IC3302 - IC3304	Check if 3.3-V and 1.2-V power supplies are activated.
		HD DIGITAL	Defective IC3401	SQ ASIC BLOCK	IC3401	
		POWER SUPPLY	The 8-V power supply is not activated.			
4 times	Abnormally high temperature of the panel		Abnormally high temperature of the panel	Ambient temperature		The Panel will be shut down if the sensor detects temperature of 75°C or higher (for the PDP-436P/-506P).
5 times	Audio failure	HD AUDIO	Speakers' grounding fault	Speaker terminals		Check if the speaker cables are in contact with the chassis, etc.
		HD AUDIO	Defective AMP IC	HD AUDIO Assy	IC3751	Check if the connectors are disconnected or are not connected securely.
		HD AUDIO	Disconnection of connectors	A1 - P5		

• Power-down diagnosis (defective points)

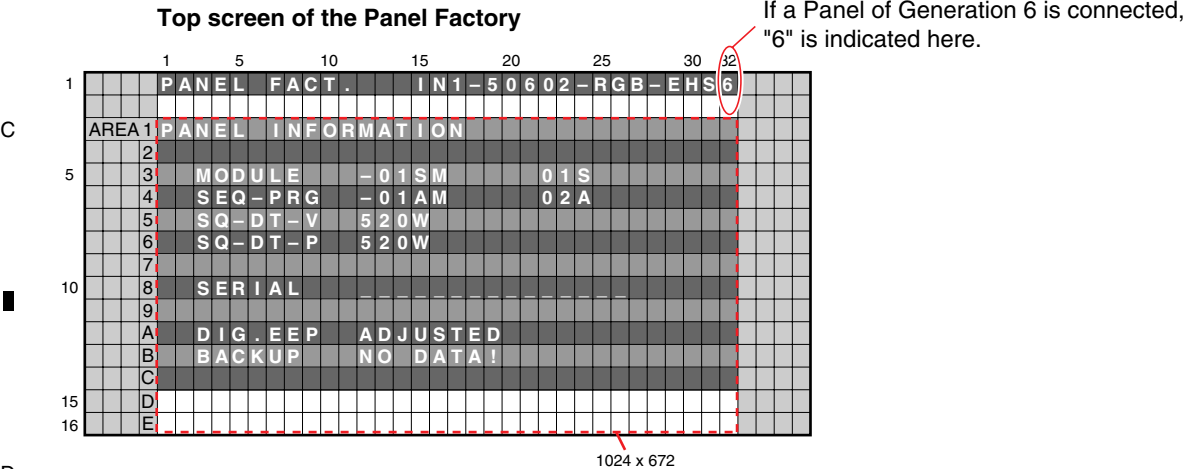
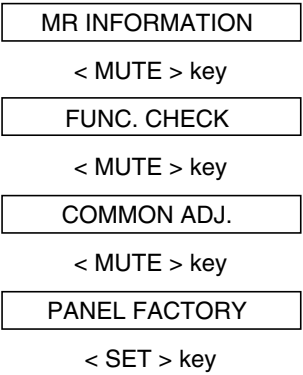
Number of Blinks	PD Circuit in Operation	Defective PCB Assy	Reason for PD (Power-down)	Point to be Checked	Possible Defective Part	Remarks
2	POWER	POWER SUPPLY				
		50 (43) SCAN A, B	VH UVP	SCAN IC	SCAN IC	VH-GNDH short-circuit
3	SCAN	50 (43) Y DRIVE		Y SUS BLOCK	IC2252, IC2253	VSUS-SUSOUT, SUSOUT-SUSGND short-circuit
				VH DC/DC	IC2502, L2501	
				CN2001, CN2350		
4	SCN-5V	50 (43) X DRIVE	VH UVP	IC1202	IC1202	VSUS-SUSOUT, SUSOUT-SUSGND short-circuit
		50 (43) SCAN A, B	Disconnection of cable detected	CN2401, CN2402		
		50 (43) Y DRIVE	IC5V UVP	SCAN IC	SCAN IC	
				IC5V DC/DC	Q2605, R2647	
6	Y-DCDC	50 (43) Y DRIVE	VOFS UVP	VOFS DC/DC	Q2606, R2619, R2620	
				Y SUS BLOCK	R2352	
			Y SUS BLOCK	IC2252, IC2253, Q2280, Q2281	MSKS-SUSOUT short-circuit	
			Vprst Regulator	Q2531, Q2532, IC2535		
7	Y-SUS	50 (43) Y DRIVE	Power-down caused by detection of middle-point voltage	Y RESONANCE BLOCK	IC2101	
				Y SUS BLOCK	Q2221	
8	ADRS	50 (43) ADDRESS	Address power-down	ADDRESS RESONANCE BLOCK	D1634	V+ADR-GND_ADR short-circuit
			Disconnection of cable detected	CN1501, CN3501-CN3504		
9	XDRIVE	50 (43) X DRIVE	Disconnection of cable detected	CN1001		
			Disconnection of cable detected	CN1201		
10	X-DCDC	50 (43) X DRIVE	VRN UVP	VRN DC/DC	Q1323, R1332, R1333	
				X SUS BLOCK	R1204, Q1272	
11	X-SUS	50 (43) X DRIVE	Power-down caused by detection of middle-point voltage	X RESONANCE BLOCK	IC1101	

OVP : OVER VOLTAGE PROTECT
UVP : UNDER VOLTAGE PROTECT

1 2 3 4

7.1.3 OVERVIEW OF PANEL FACTORY MODE

A ■ Top screen of the Factory Menu for the main unit



D **Note:** With this model, the structure of Factory mode has been changed, and all items related to the Panel are gathered into PANEL FACTORY mode.

Note: On-screen displays in Factory mode are indicated in white characters on a green background for the PDP-506HD/436HD and subsequent models.

■ Configuration of Panel Factory mode

No.	Submode Name		Adjustable Range	Remarks
	Submode Items			
1	PANEL INFORMATION			
2	PANEL WORKS			
3	POWER DOWN			
4	SHUT DOWN			
5	PANEL-1 ADJ (+)			
5-1		X-SUS B <=>	120 to 136	Equivalent to XSB
5-2		Y-SUS B <=>	120 to 136	Equivalent to YSB
5-3		Y-SUSTAIL T <=>	120 to 136	Equivalent to YTG
5-4		Y-SUSTAIL W <=>	120 to 136	Equivalent to YTW
5-5		XY-RST W <=>	120 to 136	Equivalent to RSW
5-6		VOL SUS <=>	000 to 255	Equivalent to VSU
5-7		VOL OFFSET <=>	000 to 255	Equivalent to VOF
5-8		VOL RST P <=>	000 to 255	Equivalent to VRP
5-9		SUS FREQ. <=>	MODE1 to MODE8	Equivalent to SFR
6	PANEL-2 ADJ (+)			
6-1		R-HIGH <=>	000 to 511	Equivalent to PRH
6-2		G-HIGH <=>	000 to 511	Equivalent to PGH
6-3		B-HIGH <=>	000 to 511	Equivalent to PBH
6-4		R-LOW <=>	000 to 999	Equivalent to PRL
6-5		G-LOW <=>	000 to 999	Equivalent to PGL
6-6		B-LOW <=>	000 to 999	Equivalent to PBL
6-7		ABL <=>	000 to 255	Equivalent to ABL
7	PANEL REVISE			
7-1		R-LEVEL <=>	LV-0 to LV-7	Equivalent to RRL
7-2		G-LEVEL <=>	LV-0 to LV-7	Equivalent to RGL
7-3		B-LEVEL <=>	LV-0 to LV-7	Equivalent to RBL
8	ETC (+)			
8-1		BACKUP DATA <=>	NO OPRT<=>TRANSFER or ERR	Equivalent to BCP
8-2		DIGITAL EEPROM <=>	NO OPRT<=>DELETE/REPAIR	Equivalent to FAJ/UAJ
8-3		PD INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CPD
8-4		SD INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CSD
8-5		HR-MTR INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CHM
8-6		PM/B1-B5 <=>	NO OPRT <=>CLEAR	Equivalent to CPM
8-7		P-COUNT INFO. <=>	NO OPRT <=>CLEAR	Equivalent to CPC
9	MASK SETUP (+)			
9-1		MASK OFF		Equivalent to MKS+S00
9-2		SGL MASK 01 <=>	<=>V48<=>V50<=>V60<=>P60<=>P70<=>V72<=>V75<=> (Select each sequence.)	Equivalent to MKS+S01
9-3		SGL MASK 02 <=>		Equivalent to MKS+S02
		•••		•••
9-62		CMB MASK 08 <=>		Equivalent to MKC+S08
9-63		CMB MASK 09 <=>		Equivalent to MKC+S09

A

■ Details on submodes related to the panel

The GUI display examples here are those displayed when the main unit is used with the 50-inch model.

■ 1. PANEL INFORMATION

B

	1	5	10	15	20	25	30	32
1	P	A	N	E	L	F	A	C
	T	.		I	N	1	-	5
	0	6	0	2	-	R	G	B
	-	E	H	S	6			
	P	A	N	E	L	I	N	F
	I	N	F	O	R	M	A	T
5	M	O	D	U	L	E	-	0
	1	S	M				0	1
	S	E	Q	-	P	R	G	-
	0	1	A	M			0	2
	A							
	S	Q	-	D	T	-	V	
	5	2	0	W				
	S	Q	-	D	T	-	P	
	5	2	0	W				
10	S	E	R	I	A	L		
	D	I	G	.	E	E	P	
	A	D	J	U	S	T	E	D
	B	A	C	K	U	P		
	N	O						
15								
16								

■ Key operation

- <DOWN> : Shifting to PANEL WORKS
- <UP> : Shifting to MASK SETUP (+)
- <SEL> : MASK ON/OFF
- <L/R> : Updating displayed information

C

The version of the microcomputer of the panel, serial number of the main unit, adjustment values of the main unit, and backup status are displayed.

2. PANEL WORKS

D

Note:

Screen display " PANEL_FACT.____IN1-50602-RGB-EHS6".
Refer to service manual of Media Receiver.

E

	1	5	10	15	20	25	30	32
1	P	A	N	E	L	F	A	C
	T	.		I	N	1	-	5
	0	6	0	2	-	R	G	B
	-	E	H	S	6			
	P	A	N	E	L	W	O	R
	K	S						
5	P	M	-	B	1		0	0
	0	0	0	0	0	7	1	5
							M	
	P	M	-	B	2		0	0
	0	0	0	0	0	6	0	7
							M	
	P	M	-	B	3		0	0
	0	0	0	0	0	8	5	2
							M	
	P	M	-	B	4		0	0
	0	0	0	0	0	6	6	8
							M	
	P	M	-	B	5		0	0
	0	0	0	0	0	7	3	3
							M	
10	H	R	-	M	T	R		
	0	0	0	0	2	5	H	
						2	0	M
	P	-	C	O	U	N	T	
	0	0	0	0	0	0	0	
							T	I
	T	E	M	P	1			
	+	0	2	7	.	4	1	
							C	
15								
16								

■ Key operation

- <DOWN> : Shifting to POWER DOWN
- <UP> : Shifting to PANEL INFORMATION
- <SEL> : MASK ON/OFF
- <L/R> : Updating displayed information

- The data from the pulse meter for each block from PM-B1 to PM-B5 are indicated. The values stored in the EEPROM (3 bytes each) are each converted into a decimal number, and the higher-order 8 digits are displayed (that means that the lowest-order digit represents millions).
- TEMP1: Indicates the temperature of the panel. By your pressing the L or R key, the temperature value can be updated.

F

3. POWER DOWN

	1	5	10	15	20	25	30	32
1		PANEL	FACT.		IN1-50602-RGB-EHS6			
		POWER	DOWN			000124H	23M	
		1ST		2ND				
5		1	X-DRV	-----		000124H	21M	
		2	Y-SUS	SQ-NON		000115H	05M	
		3	SCAN	-----		000107H	53M	
		4	POWER	SQ-NON		000098H	47M	
10		5	ADRS-	-----		000051H	30M	
		6	SCN5V	X-SUS-		000022H	21M	
		7	SQ-NON	-----		000000H	57M	
		8						
15								
16								

■ Key operation

- <DOWN> : Shifting to SHUTDOWN
- <UP> : Shifting to PANEL WORKS
- <SEL> : MASK ON/OFF
- <L/R> : Updating displayed information

- Basically, data acquired with the command QPD are displayed in the columns "1ST" and "2ND", with the values from the hour meter when the power-down occurred.

<Causes of power-down and corresponding OSD indications>

Cause of power-down	OSD Indication	Cause of power-down	OSD Indication
POWER SUPPLY Unit	P-PWR	ADDRESS Assy	ADRS
SCAN Assy	SCAN	X-DRIVE Assy	X-DRV
5V power for SCAN	SCN5V	DCDC for X drive	X-DCDC
Not used		X-SUS	X-SUS
DCDC for Y drive	Y-DCDC	Sequence drive stopped	SQ-NON
Y-SUS	Y-SUS	Specification inability	UNKNOW

4. SHUT DOWN

	1	5	10	15	20	25	30	32
1		PANEL	FACT.		IN1-50602-RGB-EHS6			
		SHUT	DOWN			000124H	23M	
		MAIN		SUB				
5		1	TEMP1	-----		000124H	21M	
		2	AUDIO	-----		000115H	05M	
		3	MD-IIC	EEPROM		000107H	53M	
		4	SQ-IC	-----		000098H	47M	
10		5	MD-IIC	VOL IC		000051H	30M	
		6						
		7						
		8						
15								
16								

■ Key operation

- <DOWN> : Shifting to PANEL-2ADJ (+)
- <UP> : Shifting to POWER DOWN
- <SEL> : MASK ON/OFF
- <L/R> : Updating displayed information

- Basically, data acquired with the command QSD (for MDU-IIC, subcategory data are also displayed) are displayed with the values from the hour meter when the shutdown occurred.

<Causes of shutdown and corresponding OSD indications>

Cause of shutdown (main)	OSD Indication
SEQUENCE PROCESSOR	SQ-IC
MDU-IIC	MDU-IIC (with subcategory)
Abnormality in RST2	RST2
Panel having high temperature	TEMP1
Short-circuited speaker	AUDIO

Cause of shutdown (sub)	OSD Indication
EEPROM	EEPROM (IC3156)
BACKUP	BACKUP (IC3754)
DAC	DAC (IC3302 to IC3304)
Audio IC	VOL-IC (IC3158)
DVI	DVI

A

5. PANEL-1 ADJ

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-50602-RGB-EHS6																															
	[TBL1/60VS]																															
5																																
10																																
15	PANEL-1 ADJ (+)																															
16																																

■ Key operation

<DOWN> : Shifting to PANEL-2 ADJ (+)
 <UP> : Shifting to POWER DOWN
 <SET> : Shifting to the next nested layer
 <SEL> : MASK ON/OFF

B

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-50602-RGB-EHS6																															
	PANEL-1 ADJ [TBL1/60VS]																															
5																																
10																																
15	X-SUS-B <=> : 128																															
16																																

■ Key operation

<DOWN> : Shifting to the next item
 <UP> : Shifting to the previous item
 <RIGHT> : Adding by one to the adjustment value
 <LEFT> : Subtracting by one from the adjustment value
 <VOL+> : Adding by 10 to the adjustment value
 <VOL-> : Subtracting by 10 from the adjustment value
 <SET> : Determining the adjustment value and shifting to the upper layer
 <SEL> : MASK ON/OFF

C

D

<Drive-sequence indications and indications for the ABL/WB tables>

(The OSD indications are displayed at the right part of the third line for submode PANEL-1 ADJ and subsequent submodes.)

Type of WB/ABL Tables		Type of Drive Sequences					
		Standard Video/MASK ON		Nonstandard Video		PC	
TBL1		48VS		---		60PS	Not used for consumer products
TBL2		50VS		50VN		70PS	
TBL3		60VS		60VN			
TBL4		72VS	Only Mask indication	---			
		75VS		75VN			

E

<Lower-layer items of PANEL-1 ADJ>

No.	Items	Adjustment/Setting Value	Remarks
1	X-SUS B <=>	120 to 136	Equivalent to XSB
2	Y-SUS B <=>	120 to 136	Equivalent to YSB
3	Y-SUSTAIL T <=>	120 to 136	Equivalent to YTG
4	Y-SUSTAIL W <=>	120 to 136	Equivalent to YTW
5	XY-RST W <=>	120 to 136	Equivalent to RSW
6	VOL SUS <=>	000 to 255	Equivalent to VSU
7	VOL OFFSET <=>	000 to 255	Equivalent to VOF
8	VOL RST P <=>	000 to 255	Equivalent to VRP
9	SUS FREQ. <=>	<=>MODE1 to MODE8<=>	Equivalent to SFR

F

6. PANEL-2 ADJ

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-50602-RGB-EHS6																															
	[TBL1/60VS]																															
5																																
10																																
15	PANEL-2 ADJ (+)																															
16																																

■ Key operation

- <DOWN> : Shifting to PANEL REVISE
- <UP> : Shifting to PANEL-1 ADJ (+)
- <SEL> : MASK ON/OFF
- <SET> : Shifting to the next nested layer

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-50602-RGB-EHS6																															
	PANEL-2 ADJ [TBL1/60VS]																															
5																																
10																																
15	R-HIGH <=> : 256																															
16																																

■ Key operation

- <DOWN> : Shifting to the next item
- <UP> : Shifting to the previous item
- <RIGHT> : Adding by one to the adjustment value
- <LEFT> : Subtracting by one from the adjustment value
- <VOL+> : Adding by 10 to the adjustment value
- <VOL-> : Subtracting by 10 from the adjustment value
- <SET> : Determining the adjustment value and shifting to the upper layer
- <SEL> : MASK ON/OFF

<Lower-layer items of PANEL-2 ADJ>

No.	Items	Adjustment/Setting Value	Remarks
1	R-HIGH <=>	000 to 511	Equivalent to PRH
2	G-HIGH <=>	000 to 511	Equivalent to PGH
3	B-HIGH <=>	000 to 511	Equivalent to PBH
4	R-LOW <=>	000 to 999	Equivalent to PRL
5	G-LOW <=>	000 to 999	Equivalent to PGL
6	B-LOW <=>	000 to 999	Equivalent to PBL
7	ABL <=>	000 to 255	Equivalent to ABL

A

7. PANEL REVISE

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-50602-RGB-EHS6																															
	[TBL1/60VS]																															
5																																
10																																
15	PANEL REVISE (+)																															
16																																

■ Key operation

- <DOWN> : Shifting to ETC.(+)
 <UP> : Shifting to PANEL-2 ADJ (+)
 <SEL> : MASK ON/OFF
 <SET> : Shifting to the next nested layer

B

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-50602-RGB-EHS6																															
	PANEL REVISE [TBL1/60VS]																															
5																																
10																																
15	R-LEVEL <=> : LV-0																															
16																																

■ Key operation

- <DOWN> : Shifting to the next item
 <UP> : Shifting to the previous item
 <RIGHT> : Adding by one to the adjustment value
 <LEFT> : Subtracting by one from the adjustment value
 <VOL+> : Adding by 10 to the adjustment value
 <VOL-> : Subtracting by 10 from the adjustment value
 <SET> : Determining the setting value and shifting to the upper layer
 <SEL> : MASK ON/OFF

C

D

<Lower-layer items of PANEL REVISE>

No.	Items	Adjustment/Setting Value	Remarks
1	R-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RRL
2	G-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RGL
3	B-LEVEL <=>	<=>LV-0 to LV-7<=>	Equivalent to RBL

E

F

8. ETC.

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-50602-RGB-EHS6																															
	[TBL1/60VS]																															
5																																
10																																
15	ETC. (+)																															
16																																

■ Key operation

- <DOWN> : Shifting to MASK SETUP (+)
- <UP> : Shifting to PANEL REVISE (+)
- <SEL> : MASK ON/OFF
- <SET> : Shifting to the next nested layer

	1	5	10	15	20	25	30	32																								
1	PANEL FACT . IN1-50602-RGB-EHS6																															
	ETC . [TBL1/60VS]																															
5																																
10																																
15	BACKUP EEPROM <=> :NO OPRT																															
16																																

■ Key operation

- <DOWN> : Shifting to the next item
- <UP> : Shifting to the previous item
- <RIGHT> : Adding by one to the adjustment value
- <LEFT> : Subtracting by one from the adjustment value
- <SET> : Determining the setting value and shifting to the upper layer
- <SEL> : MASK ON/OFF

<Lower-layer items of ETC.>

No.	Items	Adjustment/Setting Value	Remarks
1	BACKUP DATA <=>	<=>NO OPRT<=>TRANSFER<=>	"ERR" is indicated when no data are in the backup EEPROM. To activate the option to select TRANSFER, press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
2	DIGITAL EEPROM <=>	<=>NO OPRT<=>REPAIR/DELETE<=>	"DELETE" is indicated when the main unit has been already adjusted. To activate the option to select REPAIR/DELETE, press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
3	PD INFO. <=>	<=>NO OPRT<=>CLEAR<=>	To activate the option to select CLEAR, repeatedly press the SET key about 5 seconds. (There is a situation resting more than 5 seconds.)
4	SD INFO. <=>	<=>NO OPRT<=>CLEAR<=>	
5	HR-MTR INFO. <=>	<=>NO OPRT<=>CLEAR<=>	
6	PM/B1-B5 <=>	<=>NO OPRT<=>CLEAR<=>	
7	P-COUNT INFO. <=>	<=>NO OPRT<=>CLEAR<=>	

- "NO OPRT" is selected when this submode is entered (to avoid accidental misoperation).
- When each item is set, the process starts then the unit shifts to the upper layer. (When NO OPRT is determined, the unit will shift to the upper layer without doing anything.)
- When data are set to be backed up, if the digital EEPROM has not been adjusted, do the operation of LED pattern No. 7.

A

9. MASK SETUP

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-F32-RGB-EHS																															
	[TBL1/60VS]																															
5																																
10																																
15	MASK SETUP (+)																															
16																																

■ Key operation

- <DOWN> : Shifting to PANEL INFORMATION
- <UP> : Shifting to ETC. (+)
- <SEL> : MASK ON/OFF
- <SET> : Shifting to the next nested layer

B

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. IN1-F32-RGB-EHS																															
	MASK SETUP [TBL1/60VS]																															
5																																
10																																
15	SGL MASK 01 : V60																															
16																																

■ Key operation

- <DOWN> : Shifting to the next MASK
- <UP> : Shifting to the previous MASK
- <RIGHT> : Changing MASK sequence (+)
- <LEFT> : Changing MASK sequence (-)
- <SET> : Determining the setting value and shifting to the upper layer
- <SEL> : MASK ON/OFF

C

D

<Lower-layer items of MASK SETUP>

No.	Items	Adjustment/Setting Value	Remarks
1	MASK OFF		Equivalent to MKS+S00
2	SGL MASK 01 <=>		Equivalent to MKS+S01
3	SGL MASK 02 <=>	<=>48V<=>50V<=>60V<=> 60P<=>70P<=>72V<=>75V<=>	Equivalent to MKS+S02
4
5	CMB MASK 09 <=>		Equivalent to MKC+S08
6	CMB MASK 10 <=>		Equivalent to MKC+S09

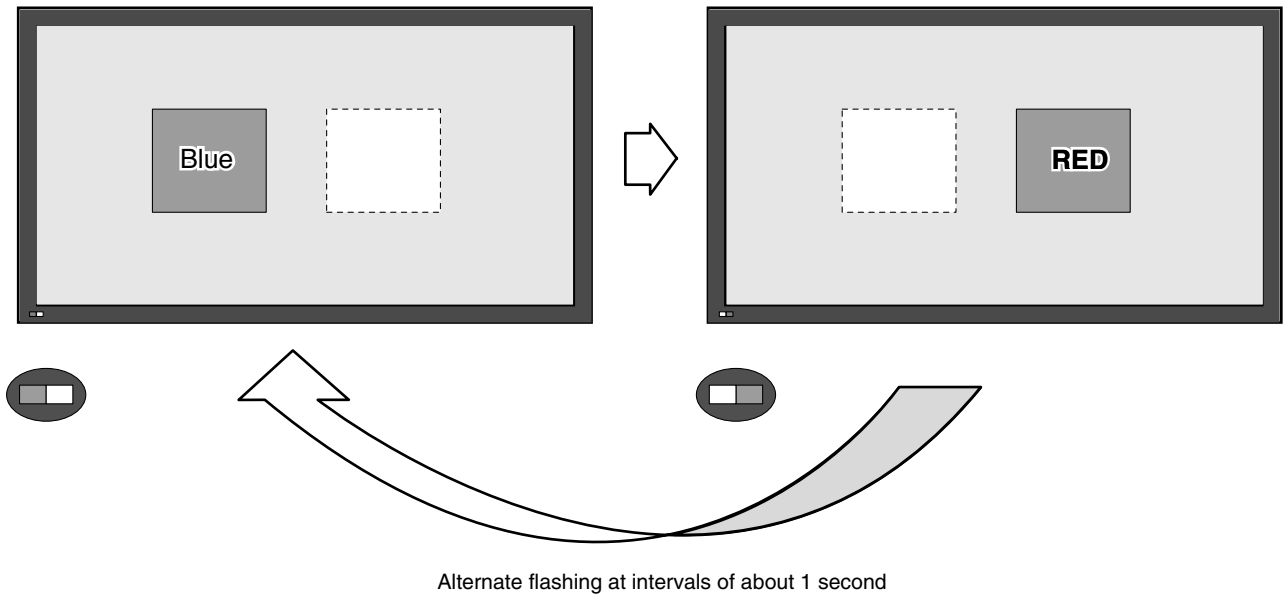
- With the keys <LEFT> and <RIGHT>, the Panel drive sequence in the MASK indication is changed in the following way:
<=>48V<=>50V<=>60V<=>72V<=>75V<=>60P<=>70P<=>

E

F

7.1.4 OPERATION WHEN THE MEDIA RECEIVER IS NOT CONNECTED

As the connection conditions of the system cables (MDR cable, DVI cable) are usually detected, if no connection, such as cable disconnection, is detected, a warning indication (alternate flashing of the red and blue areas) is displayed on the mask screen, and the red and green LEDs flash alternately. Then after about 30 seconds, the power is automatically turned off.



To operate the panel without the Media Receiver, there are the following two ways:

1. Operation-without-the-Media-Receiver mode

Input the "SYS S00" RS232C command. The status of the LEDs changes to that in normal operation mode.

Note: Turning the AC switch to OFF then ON also maintains this mode. However, once the unit is connected with the Media Receiver using the System cable, this mode is automatically canceled.

2. DVI mode

Turn the unit on while DVI SG signals are being input with only the DVI connector connected. After a warning is displayed for about 5 seconds, the unit is ready to display the screen of the input signal. (Blue LED lit)

Notes: • Although the output from XGA (43 inch) and WXGA (50 inch) can be input to the unit, this is not a mode open to general users. (With some signals, errors such as power-down may occur.)

7.1.5 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM

Function: To prevent a power-down from being generated, operation of only the digital-signal processing and audio circuits are enabled, and power is not supplied to the panel driving system (large-signal system).

Usages:

1. In a case where a check is required of signals' being correctly output to the driving systems during a repair, etc.
2. In a case where diagnosis is required for judging whether the power to the large-signal system or small-signal system has been down when a power-down occurred

Methods:

1. Short-circuit the points (see Fig. 4 below) on the face and on the reverse side of the HD DIGITAL Assy.
2. Issue the "DRV S00" RS-232C command. (Command for turning the function off: DRV S01)

Notes:

- When the power to the large-signal system is off, as the PD signal is muted, power-downs other than PS_PD are not activated.
- As soon as the clips are removed while the power to the large-signal system is off, a power-down will occur. Be sure to turn the power off before removing the clips.
- While this function is activated with RS-232C commands, it is possible to issue "DRV S01" (for turning the function off) while the power is on. However, as it may damage the unit, turn the power off before issuing the "DRV S01" command.
- Although the "DRV S00/S01" RS-232C commands are valid during Standby mode, once the main power is turned off, the unit will return to "DRV S01."

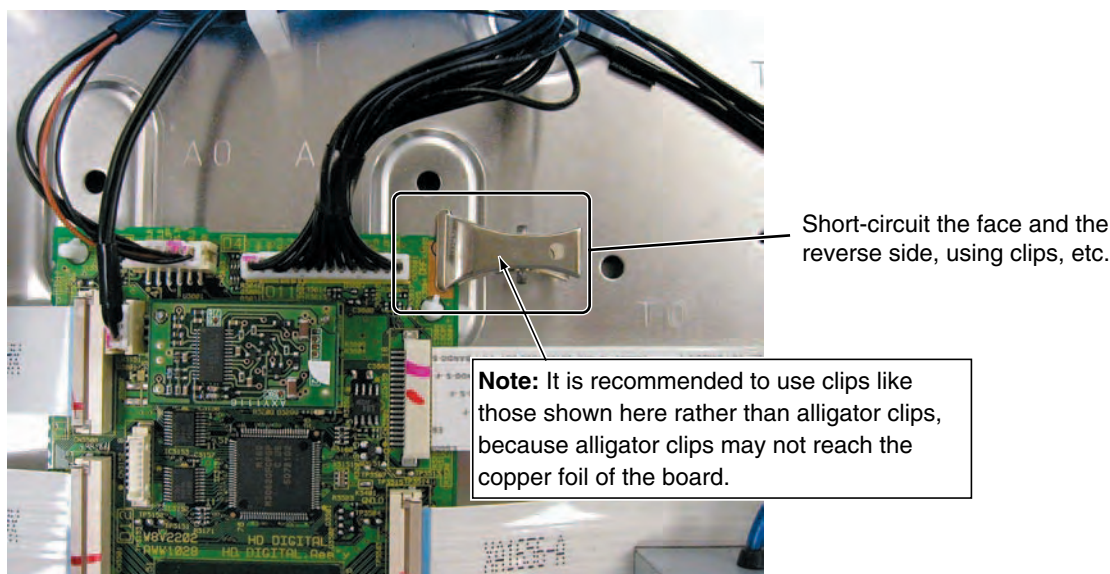


Fig. 4 Position of DRIVE OFF

Outline

Adjustment data set at the factory are stored in the EEPROM (IC****/4K) on the HD DIGITAL Assy. Those adjustment data are automatically backed up in the EEPROM (backup EEPROM: IC****) on the HD AUDIO Assy. Therefore, even if the HD DIGITAL Assy is replaced, the adjustment data can be restored by copying the backup data, which enables you to omit newly performing adjustments on the main unit.

Data to be backed up

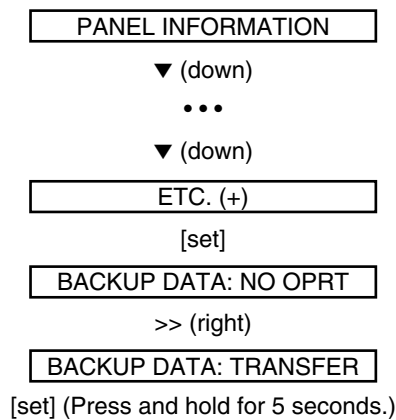
- Voltage margin adjustment values
- Data on the hour meter
- Upper limit of power-adjustment value
- Data on the pulse meter
- Panel WB adjustment values
- Serial number
- Drive waveform adjustment values
- Data of the P-ON counter
- PD/SD histories

How to copy the backup data

1. When the HD DIGITAL Assy is replaced with that for service (normal servicing)
(In a case where no data are on the DIG. EEP, and backup data have been adjusted)

Command: "BCP" (Effective during FAY)

Factory Menu

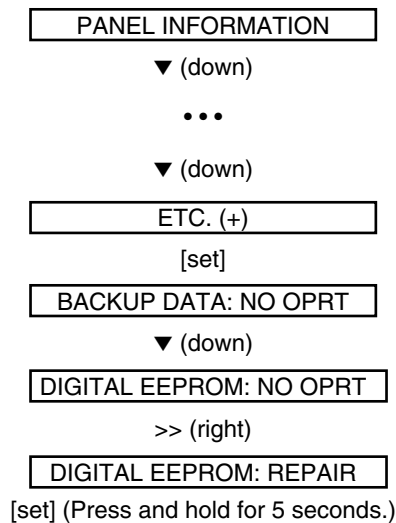


- After the HD DIGITAL Assy is replaced with that for service, check that "DIG. EEP: NO DATA!" is displayed on the Panel Information screen of the Factory Menu.
- If this command is not executed, the red LED lights, and the blue LED flashes, to warn you that copying of the backup adjustment data for the main unit failed.
- If both the HD DIGITAL Assy and HD AUDIO Assy are to be replaced, first replace the HD AUDIO Assy and set the unit to Standby mode. Then replace the HD DIGITAL Assy.

2. In a case where a HD DIGITAL Assy that was mounted on another unit is to be reused as a service part.

Command: "FAJ" (Effective during FAY)

Factory Menu: PANEL FACT => ETC => DIGITAL EEPROM: DELETE



- If the HD DIGITAL Assy of Unit 1 is mounted to be reused in Unit 2 to be repaired, and Unit 2 enters Standby mode, the adjustment data and histories stored in Unit 1 are erased, and those of Unit 2 are copied. Once overwritten, the original data will not be restored. After the Assy is replaced, be sure to enter Factory mode, using the remote control unit for servicing, and perform the procedures described herein. Or, before mounting an Assy to be reused as a service Assy, perform these procedures then mount it on the product to be repaired.

3. In a case where the HD DIGITAL Assy is replaced with one for servicing because of a defective EEPROM on the original Assy and manual adjustments are to be performed
(In a case where no data are stored in the HD DIGITAL Assy or as backup, and the values that have been manually adjusted on Service Menu are to be applied as adjustment data for the main unit)

Command: "UAJ" (Effective during FAY)
Factory Menu

PANEL INFORMATION

▼ (down)

...

▼ (down)

ETC. (+)

[set]

BACKUP DATA: NO OPRT

▼ (down)

DIGITAL EEPROM: NO OPRT

>> (right)

DIGITAL EEPROM: REPAIR

[set] (Press and hold for 5 seconds.)

- If the HD DIGITAL Assy with which adjustment data for the main unit have been copied is mounted, the above procedures are not necessary after manual adjustment.
(The indication "DIGITAL EEPROM: REPAIR" will not be displayed.)

Clearing data on various histories when the HD DIGITAL Assy is replaced

Other than adjustment data for the main unit, data to be backed up include the accumulated power-on time and a history of defective parts, which are data updated and stored in memory. Among those data, some are required to be cleared when the HD DIGITAL Assy is replaced for servicing, as shown below:

Item	Backed-up data	Type of servicing			RS-232C command
		Panel replacement	Replacement of the power-supply block	Others	
Hour meter	Accumulated display	To be cleared	Not to be cleared	Not to be cleared	CHM
SD history	Point where an SD occurred and data on the hour meter	To be cleared	Not to be cleared	Not to be cleared	CSD
PD history	Point where a PD occurred and data on the hour meter	To be cleared	Not to be cleared	Not to be cleared	CPD
Pulse meter	Accumulated number of pulses of the Panel (5 blocks)	To be cleared (essential)	Not to be cleared	Not to be cleared	CPM
Accumulated number of power-ons	Accumulated number of RELAY_ONs	Not to be cleared	To be cleared (essential)	Not to be cleared	CPC

Notes:

- 1: With the PDP-506P/436P and subsequent models, because various compensation functions use pulse-meter data for calculating compensation values, if related Assys are replaced, data on various histories must be cleared.
- 2: To clear data using RS-232C commands, after entering Factory mode (by sending FAY or PFY), issue a corresponding command. Otherwise, the command will not be executed.

A

How to clear the history for each item on the Factory Menu

B

C

D

E

F

Start point of Panel Factory

PANEL INFORMATION

▼ (down)

...

▼ (down)

ETC. (+)

[set]

BACKUP DATA

▼ (down)

DIGITAL EEPROM

▼ (down)

Clearing the PD history

PD INFO: NO OPRT

>> (right)

PD INFO: CLEAR

[set] (Press and hold for 5 seconds.)

Clearing the SD history

SD INFO: NO OPRT

>> (right)

SD INFO: CLEAR

[set] (Press and hold for 5 seconds.)

Clearing the data on the
hour meter

HR-MTR INFO: NO OPRT

>> (right)

HR-MTR INFO: CLEAR

[set] (Press and hold for 5 seconds.)

▼ (down)

Clearing the data on the
pulse meter

PM/B1-BS INFO: NO OPRT

>> (right)

PM/B1-BS INFO: CLEAR

[set] (Press and hold for 5 seconds.)

Clearing the data on the
number of power-ons

P COUNT INFO: NO OPRT

>> (right)

P COUNT INFO: CLEAR

[set] (Press and hold for 5 seconds.)

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. VD1-11601-NTV-JHS6																															
	[TBL1/60VS]																															
5																																
10																																
15	ETC. (+)																															
16																																

	1	5	10	15	20	25	30	32																								
1	PANEL FACT. VD1-11601-NTV-JHS6																															
	ETC.																								[TBL1/60VS]							
5																																
10																																
15	HR-MTR INFO. <=> : NO																															
16																																

Note : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

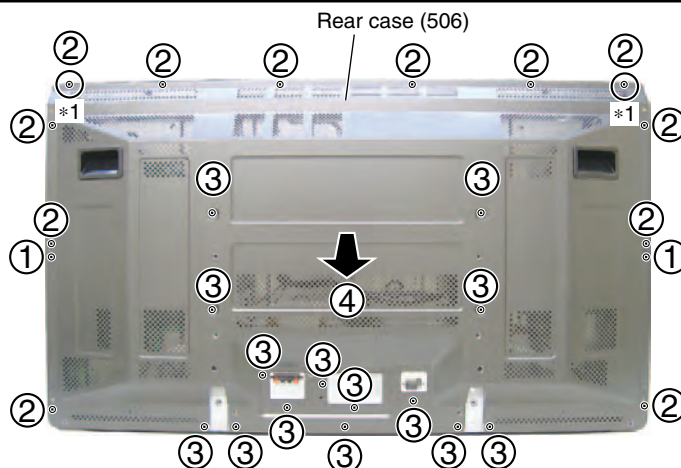
1 Rear Case (506)

- ① Remove the two screws.
- ② Remove the twelve screws.
- ③ Remove the fourteen screws.

Note *1:

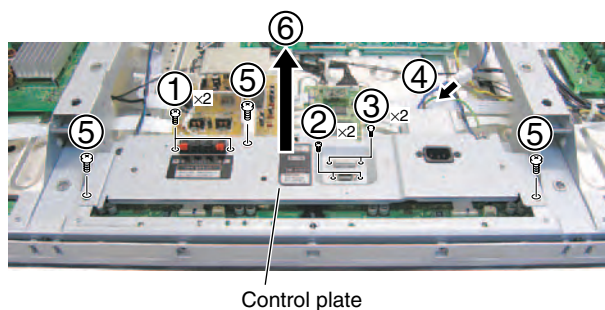
When reassembling, first secure the screws for these holes to position the rear case (506) correctly.
The hole of a left side, the screw tighten the hole of the right side next first.

- ④ Remove the rear case (506).



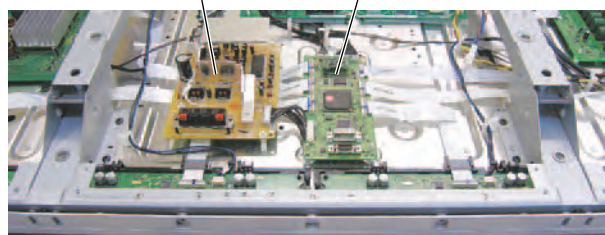
2 Control Plate Section

- ① Remove the two screws.
- ② Remove the two screws.
- ③ Remove the two hexagon head screws.
- ④ Disconnect the connector.
- ⑤ Remove the three screws.
- ⑥ Remove the control plate.



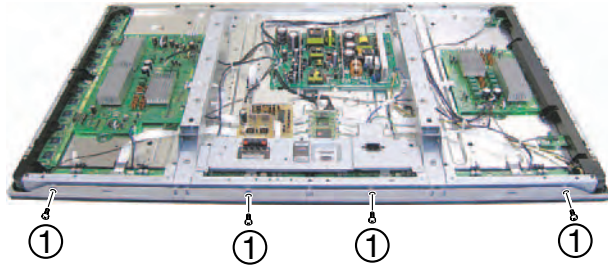
HD AUDIO Assy

HD DIGITAL Assy

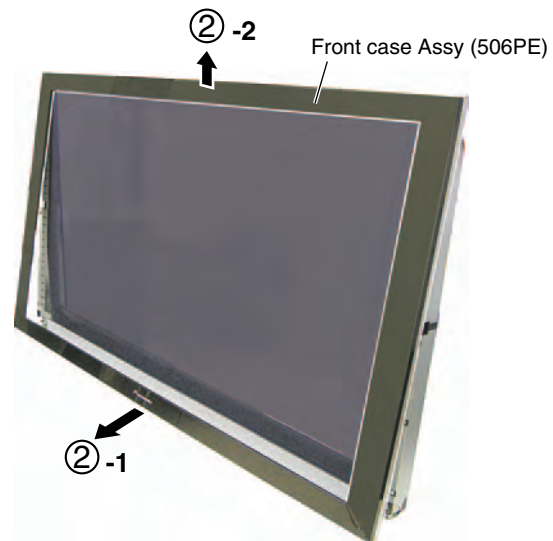


3 Front Case Assy (506PE)

- ① Remove the four screw rivets.



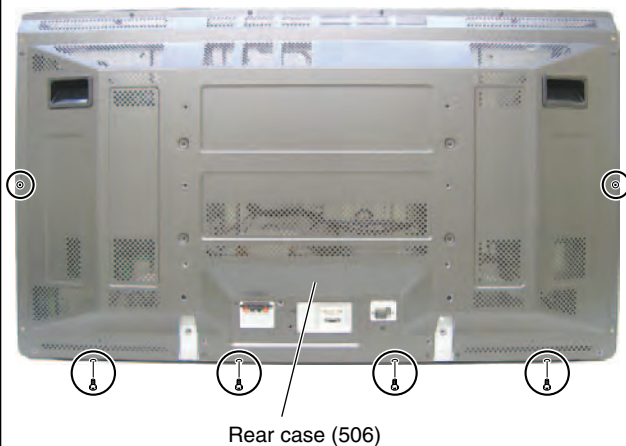
- ② Remove the front case Assy (506PE).



• When only the front case assy (506PE) is to be removed

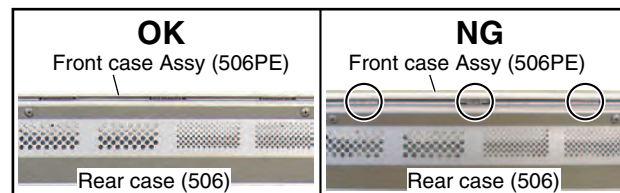
The front case assy (506PE) can be removed without removing the rear case (506) beforehand.

Remove the two screws and four screw rivets shown below:



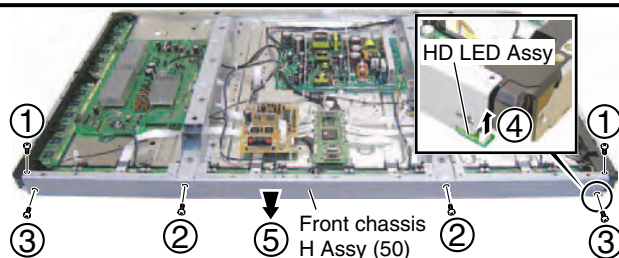
• Note when the front case assy (506PE) is to be reattached

- ① Hook the upper part of the Front Case Assy (506PE) on the upper part of the Front Panel, leaving a fist-sized gap between the bottom and the lower part of the Front Case Assy.
- ② Push the couplers of the Front Case Assy (506PE) into the rear case (506).
- ③ Make sure that all the couplers have been pushed into the rear case (506).



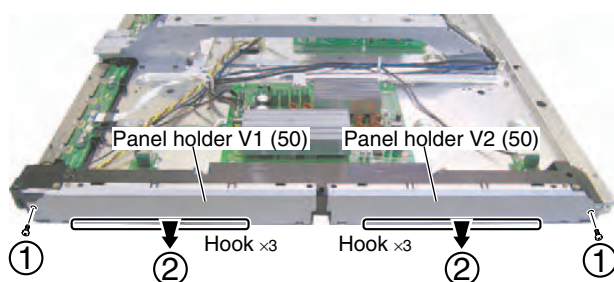
4 Front Chassis H Assy (50)

- ① Remove the two screws.
- ② Remove the two screws.
- ③ Remove the two screws.
- ④ Disconnect the connector.
- ⑤ Remove the front chassis H Assy (50).

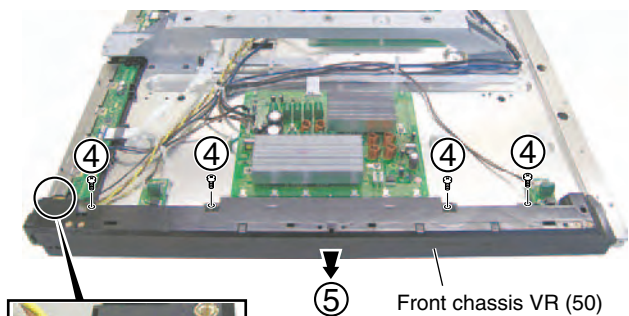


5 SUS CLAMP 1 and 2 Assys

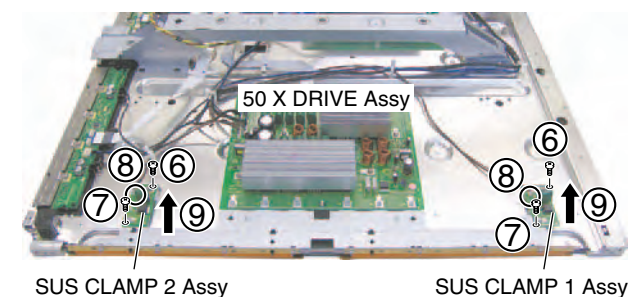
- ① Remove the two screws.
- ② Remove the panel holder V1 (50) and V2 (50)s.
(Unhook the six hooks.)



- ③ Release the housing wire.
- ④ Remove the four screws.
- ⑤ Remove the front chassis VR (50).

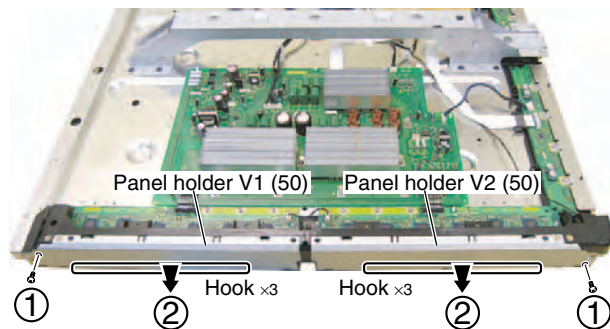


- ⑥ Remove the two screws.
- ⑦ Remove the two screws.
- ⑧ Unhook the two PCB spacers.
- ⑨ Remove the SUS CLAMP 1 and 2 Assys.

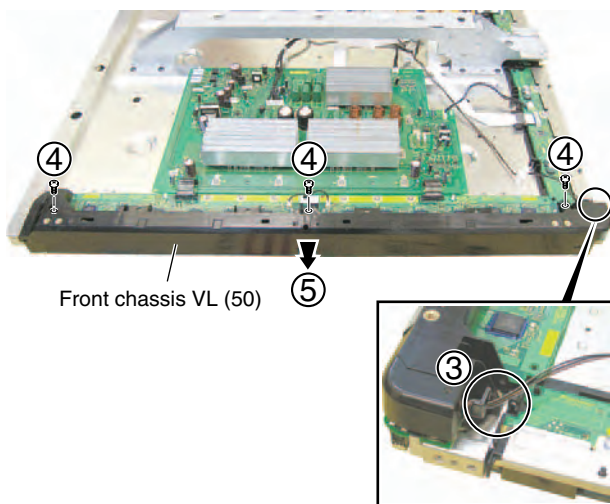


6 50 SCAN A and B Assys

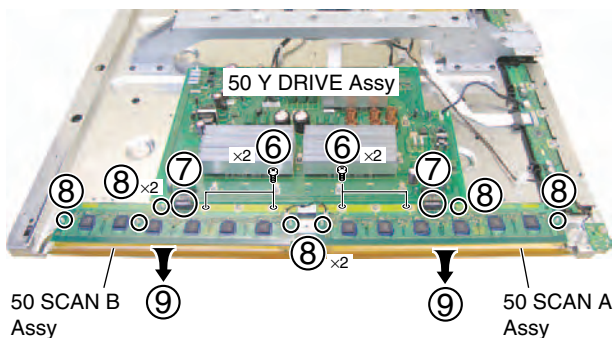
- ① Remove the two screws.
- ② Remove the panel holder V1 (50) and V2 (50)s.
(Unhook the six hooks.)



- ③ Release the housing wire.
- ④ Remove the three screws.
- ⑤ Remove the front chassis VL (50).



- ⑥ Remove the four screws.
- ⑦ Disconnect the two pin connectors.
- ⑧ Unhook the seven PCB spacers.
- ⑨ Remove the 50 SCAN A and B Assys.



A

B

C



E



A

● Pin Function

No.	Pin Name	I/O	Pin Function															
1 - 30	OUT3 - OUT32	O	High-voltage push-pull output															
31	N.C.	–	Not connected															
32 - 33	VDDH	–	High-voltage circuit supply															
34	N.C.	–	Not connected															
35 - 37	GND1	–	Ground															
38	N.C.	–	Not connected															
39	GND2	–	Ground															
40 - 41	GND1	–	Ground															
42	N.C.	–	Not connected															
43 - 44	VDDH	–	High-voltage circuit supply															
45	N.C.	–	Not connected															
46 - 77	OUT33 - OUT64	O	High-voltage push-pull output															
78	N.C.	–	Not connected															
79 - 80	VDDH	–	High-voltage circuit supply															
81	N.C.	–	Not connected															
82 - 83	GND1	–	Ground															
84	DIR	I	Setup of shift register shift direction L = Shift into reverse (SO → SI) H = Shift forward (SI → SO)															
85	SO	I/O	Serial data input / output															
86	CLK	I	Serial clock input Fetch SI or SO data to shift register by CLK rise edge															
87	LAT	I	LAT data input L = Transfer shift register data to output latch H = Hold data to output latch															
88	VDD	–	Logic supply															
89	OC1	I	Output control Control output according to the right truth value table <table><tr><th>OC1</th><th>OC2</th><th>OUT</th></tr><tr><td>L</td><td>L</td><td>ALL Hi-Z</td></tr><tr><td>L</td><td>H</td><td>DATA</td></tr><tr><td>H</td><td>L</td><td>ALL L</td></tr><tr><td>H</td><td>H</td><td>ALL H</td></tr></table>	OC1	OC2	OUT	L	L	ALL Hi-Z	L	H	DATA	H	L	ALL L	H	H	ALL H
OC1	OC2	OUT																
L	L	ALL Hi-Z																
L	H	DATA																
H	L	ALL L																
H	H	ALL H																
90	OC2	I																
91	SI	I/O	Serial data input / output															
92	CLR	I	All output reset CLR pin : L → Normal operation CLR pin : H → All output High															
93 - 94	GND1	–	Ground															
95	N.C.	–	Not connected															
96 - 97	VDDH	–	High-voltage circuit supply															
98	N.C.	–	Not connected															
99 - 100	OUT1 - OUT2	O	High-voltage push-pull output															

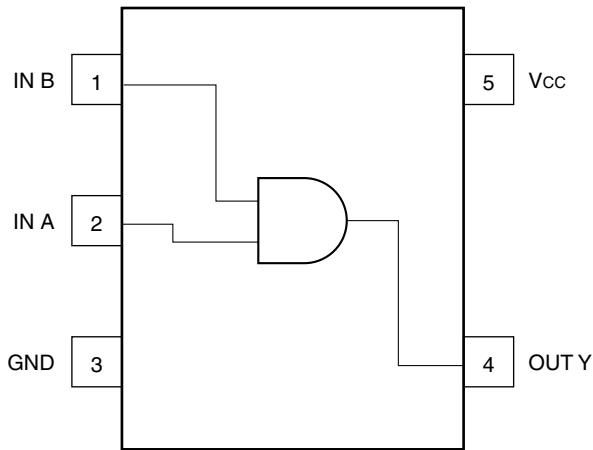
E

F

■ **TC7SH08FUS1 (50 SCAN B ASSY : IC2807)**

• 2-input AND Gate

● **Pin Arrangement (Top view) / Block Diagram**



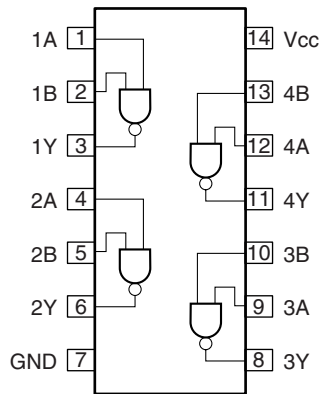
● **Truth Table**

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

■ **TC74VHC00FTS1 (50 X DRIVE ASSY : IC1002)**

• Quad 2-Input NAND Gate

● **Block Diagram**



● **Truth Table**

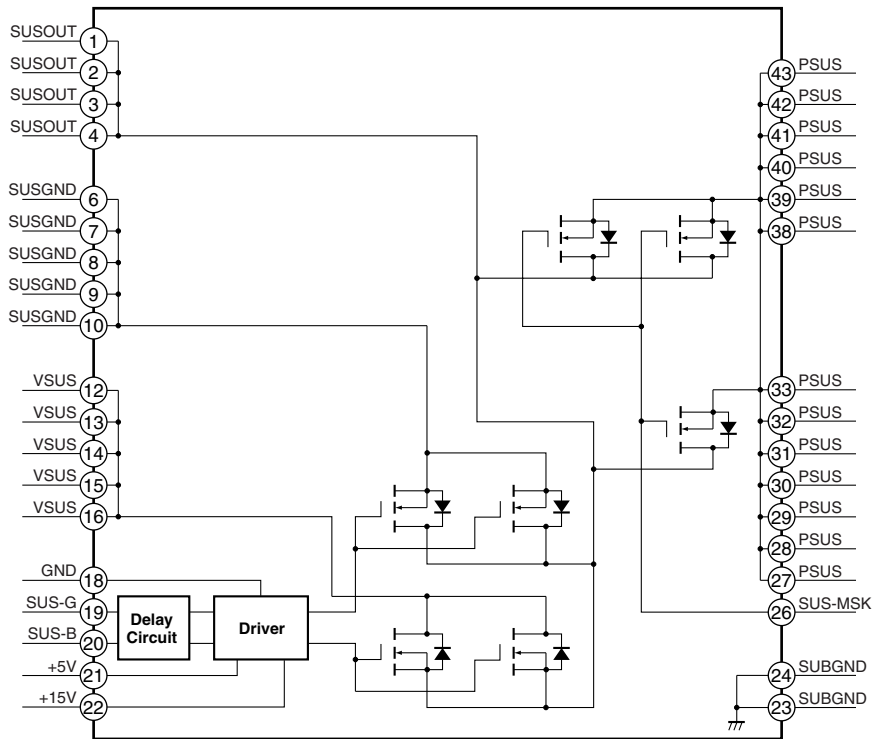
A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

A

■ AXF1140 (50 X DRIVE ASSY : IC1202)

• X Mask Module

● Block Diagram



B

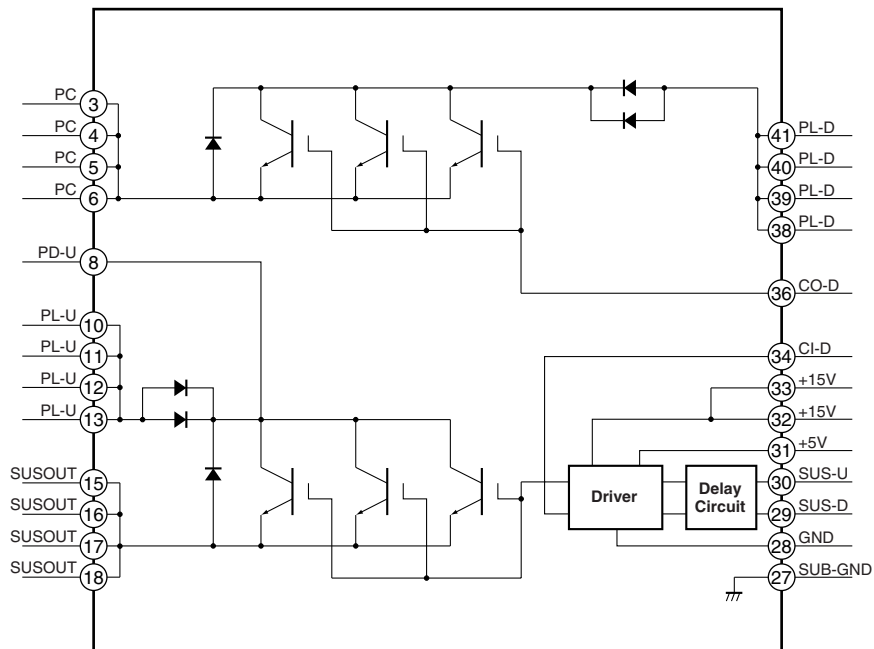
C

D

■ AXF1142 (50 X DRIVE ASSY : IC1101) (50 Y DRIVE ASSY : IC2101)

• DK Module

● Block Diagram



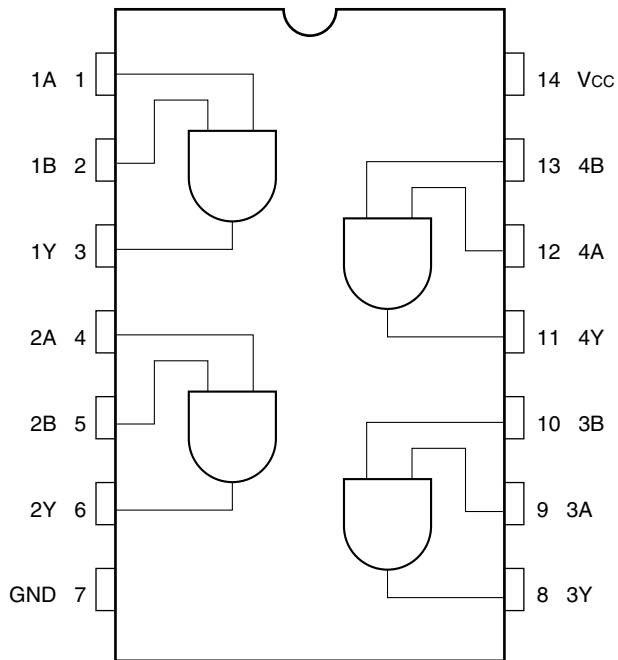
E

F

TC74VHC08FTS1 (50 Y DRIVE ASSY : IC2003, IC2005)

• Quad 2-input AND Gate

• Pin Arrangement (Top view) / Block Diagram



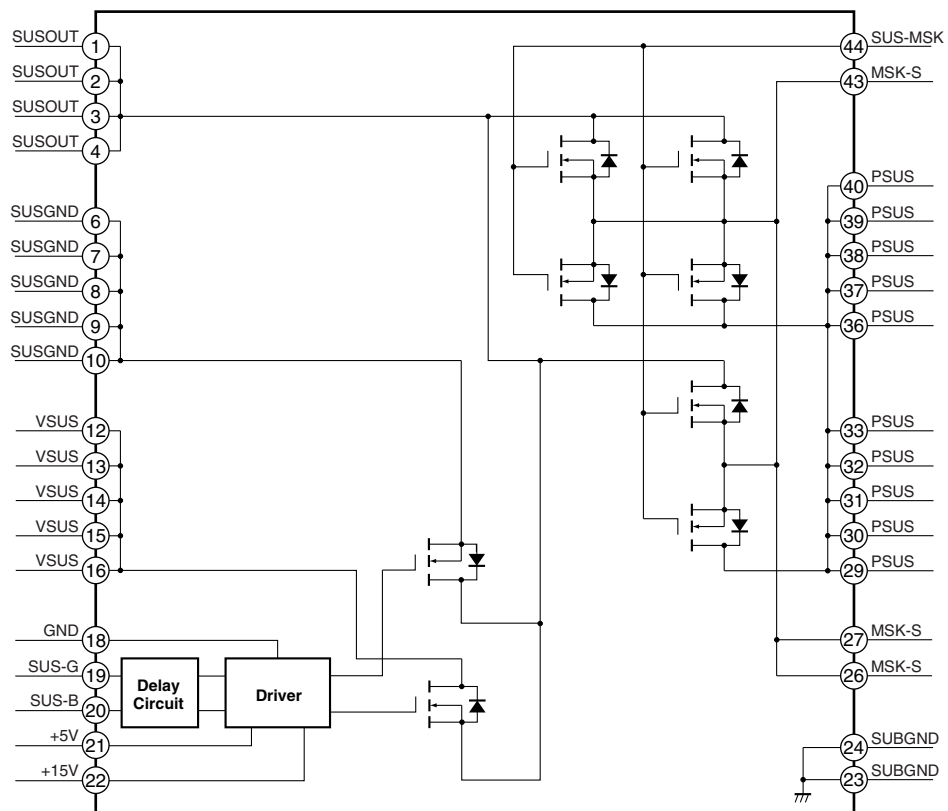
• Truth Table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

AXF1141 (50 Y DRIVE ASSY : IC2252, IC2253)

• Y Mask Module

• Block Diagram

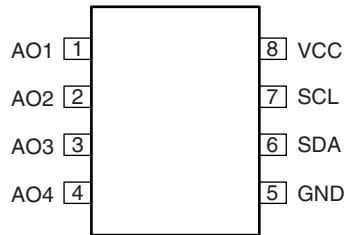


A

■ M62334FP (HD DIGITAL ASSY : IC3157)

• 8-bit 4ch I2C Bus D-A Converter with Buffer Amplifier

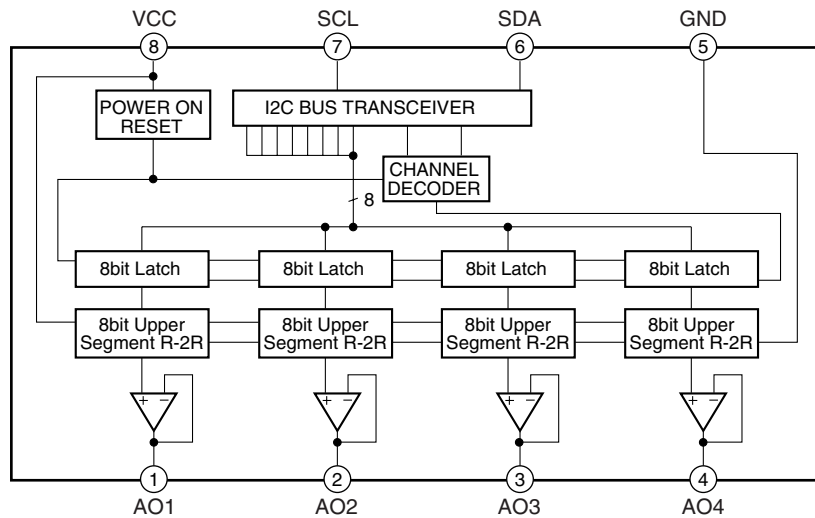
● Pin Arrangement (Top view)



● Pin Function

No.	Pin Name	Pin Function
1	AO1	8-bit resolution D-A converter output
2	AO2	
3	AO3	
4	AO4	
5	GND	Ground
6	SDA	Serial data input
7	SCL	Serial clock input
8	VCC	Power supply

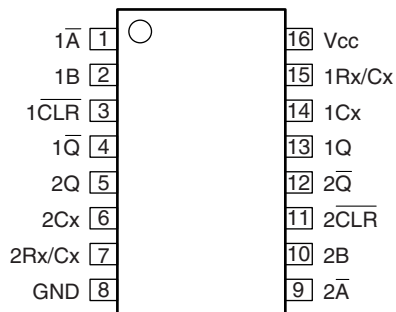
● Block Diagram



■ TC74VHC123AFTS1 (HD DIGITAL ASSY : IC3160)

• Dual Monostable Multivibrator/AFN/AFT Retriggerble

● Pin Arrangement (Top view)



● Truth Table

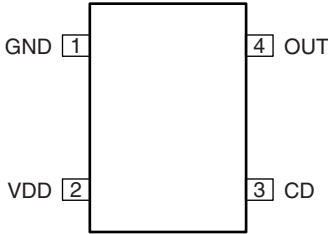
Inputs			Outputs		Note
\bar{A}	B	CLR	Q	\bar{Q}	
	H	H			Output enable
X	L	H	L	H	Inhibit
H	X	H	L	H	Inhibit
L		H			Output enable
L	H				Output enable
X	X	L	L	H	Reset

X: Don't care

PST3610UR (HD DIGITAL ASSY : IC3304)

• Reset IC

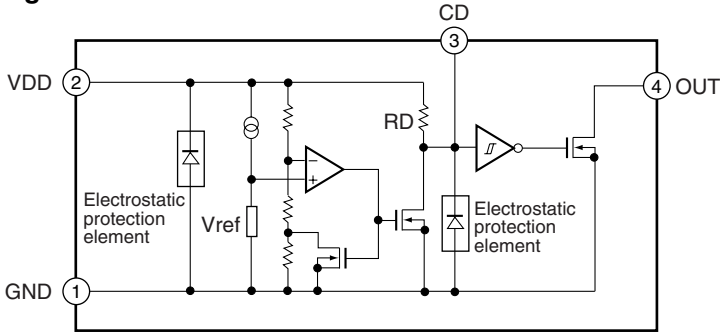
Pin Arrangement (Top view)



Pin Function

No.	Pin Name	Pin Function
1	GND	Ground
2	VDD	Power supply / Voltage detection
3	CD	Capacitor connect pin for delay
4	OUT	Reset signal output

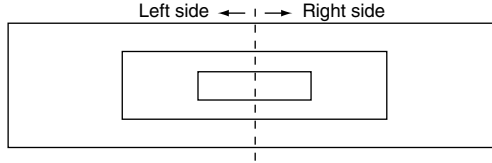
Block Diagram



PEG122C (HD DIGITAL ASSY : IC3401)

• LSI for PDP video processing (SEQUENCE PROCESSOR)

● Pin Arrangement (Top view)



● Left side (Top view)

	1	2	3	4	5	6	7	8	9	10	11	12	13	
A	BAI5	GA11	GA14	GA19	RA14	RA19	BB10	BB16	GB11	GB15	RB11	RB17	TRNSEND1	A
B	BAI4	GA10	GND33	GA18	RA13	RA18	HDI	BB15	GB10	GDN33	RB10	RB16	TRNSEND0	B
C	BAI3	BAI9	VDD33	GA17	RA12	RA17	VDI	BB14	BB19	VDD33	GB19	RB15	VDD33	C
D	BAI2	BAI8	GA13	GA16	RA11	RA16	DEI	BB13	BB18	GB14	GB18	RB14	RB19	D
E	BAI1	BAI7	GA12	GA15	RA10	RA15	DCLKI	BB12	BB17	GB13	GB17	RB13	RB18	E
F	BAI0	BAI6	PEAK	APLDT	THEATER	GND12	VDD12	BB11	VDD12	GB12	GB16	RB12	VDD12	F
G	XSCAN20	XSCAN19	XSCAN18	XSCAN17	XSCAN16	VDD12								G
H	XSCAN15	XSCAN14	XSCAN13	XSCAN12	XSCAN11	VDDTC12								H
J	XSCAN10	GND33	VDD33	XSCAN9	GNDTC12	VDD12								J
K	XSCAN8	XSCAN7	XSCAN6	XSCAN5	XSCAN4	VDDTC12								K
L	XSCAN3	XSCAN2	XSCAN1	XSCAN0	GND12	VDD12								L
M	XSUS10	XSUS9	XSUS8	XSUS7	GNDTC12	VDD12								M
N	XSUS6	GND33	VDD33	XSUS5	GND12	VDD12								N
P	XSUS4	XSUS3	XSUS2	XSUS1	XSUS0	VDDTC12								P
R	ADRS0	ADRS1	ADRS2	ADRS3	GNDTC12	VDD12								R
T	TEST_I0	GND33	VDD33	TEST_I1	TEST_I2	TEST_R								T
U	TXOUTM063	TXOUTP063	GNDLA	VDDLA	GNDLA	VDDL12								U
V	TXCLKOUTM06	TXCLKOUTP06	GNDLA	VDDLA	GNDLA	VDDLA								V
W	TXOUTM062	TXOUTP062	GNDLA	VDDLA	GNDLA	VDDLA								W
Y	TXOUTM061	TXOUTP061	GNDLA	VDDLA	GNDLA	VDDL12								Y
AA	TXOUTM060	TXOUTP060	GNDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDL12	VDDLA	VDDL12	VDDLA	VDDLA	VDDLA	AA
AB	TXOUTM073	TXOUTP073	GNDLA	VDDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	VDDBG	REFIN		AB
AC	TXCLKOUTM07	TXCLKOUTP07	GNDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	AC
AD	TXOUTM072	TXOUTP072	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	AD
AE	TXOUTM071	TXOUTP071	GNDLA	TXOUTP033	TXCLKOUTP03	TXOUTP032	TXOUTP031	TXOUTP030	TXOUTP023	TXCLKOUTP02	TXOUTP022	TXOUTP021	TXOUTP020	AE
AF	TXOUTM070	TXOUTP070	GNDLA	TXOUTM033	TXCLKOUTM03	TXOUTM032	TXOUTM031	TXOUTM030	TXOUTM023	TXCLKOUTM02	TXOUTM022	TXOUTM021	TXOUTM020	AF

GND12	GND12	GND12
GND12	GND12	GND12
GND12	GND12	GND12
GND12	GND12	GND12
GND12	GND12	GND12
GND12	GND12	GND12

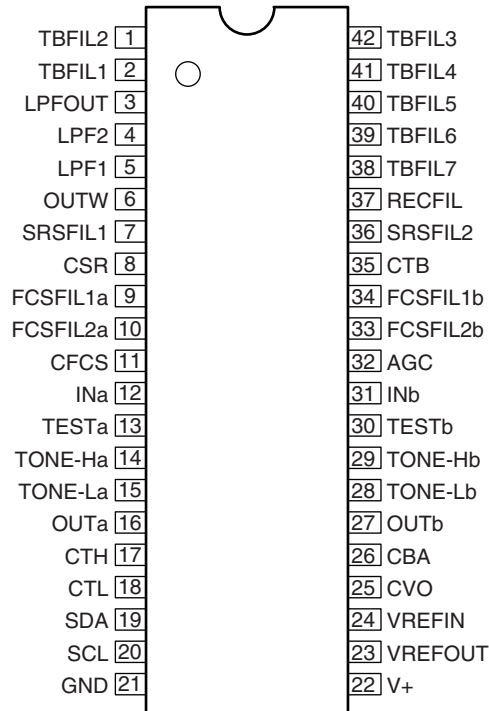
● Right side (Top view)

	14	15	16	17	18	19	20	21	22	23	24	25	26	
A	CLKD	VSSPA	EXDI011	EXDI09	EXA4	EXA10	EXA2	EXA16	EXA20	CSCS_N1	CSCS_N2	CSIOSCK1	CSIORXD	A
B	CSRDI_N	VCCPA	EXDI04	GND33	EXA3	EXA9	EXA1	EXA15	EXA19	CSCS_N0	GND33	TCRAM_MONITOR0	TCRAM_MONITOR1	B
C	CLKS	CLK_MONI	EXDI012	VDD33	EXDI00	EXA8	CSWR_N	EXA14	EXA18	UARTRXD	VDD33	TCRAM_MONITOR2	CSIORQ	C
D	VSSPB	EXDI014	EXDI05	EXDI02	EXDI08	EXA7	EXA0	EXA13	EXA17	UARTTXD	CS10TXD	RESETX	SDIUTAG	D
E	VCCPB	EXDI07	EXDI013	EXDI010	EXDI01	EXA6	EXA11	EXA12	CSEXWAIT_N	SDITRST_N	SDITCK	SDIDBI_N	SDITMS	E
F	LPFMONI	EXDI015	EXDI06	EXDI03	VDD12	EXA5	VDD12	GND12	SDITDO	SDITDI	GPI000	GPI001	GPI002	F
G								VDD12	GPI003	GPI004	GPI005	GPI006	GPI007	G
H								VDDTC12	YSCAN20	YSCAN19	YSCAN18	YSCAN17	YSCAN16	H
J								VDD12	GNDTC12	YSCAN15	VDD33	GND33	YSCAN14	J
K								VDDTC12	YSCAN13	YSCAN12	YSCAN11	YSCAN10	YSCAN9	K
L								VDD12	GND12	YSCAN8	YSCAN7	YSCAN6	YSCAN5	L
M								VDD12	GNDTC12	YSCAN4	YSCAN3	YSCAN2	YSCAN1	M
N								VDD12	GND12	YSCAN0	VDD33	GND33	VSUS10	N
P								VDDTC12	YSUS9	YSUS8	YSUS7	YSUS6	YSUS5	P
R								VDD12	GNDTC12	YSUS4	YSUS3	YSUS2	YSUS1	R
T								YSUS0	RSV1	RSV0	VDD33	GND33	AFE_PS_N	T
U								VDDL12	GNDLA	VDDLA	GNDLA	TXOUTP050	TXOUTM050	U
V								VDDLA	GNDLA	VDDLA	GNDLA	TXOUTP051	TXOUTM051	V
W								VDDLA	GNDLA	VDDLA	GNDLA	TXOUTP052	TXOUTM052	W
Y								VDDL12	GNDLA	VDDLA	GNDLA	TXCLKOUTP05	TXCLKOUTM05	Y
AA	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDL12	VDDLA	VDDLA	VDDLA	VDDLA	GNDLA	TXOUTP053	TXOUTM053	AA
AB	VREF12	GNDBG	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	VDDLA	GNDLA	TXOUTP040	TXOUTM040	AB
AC	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	VDDLA	GNDLA	TXOUTP041	TXOUTM041	AC
AD	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	GNDLA	TXOUTP042	TXOUTM042	AD
AE	TXOUTP013	TXCLKOUTP01	TXOUTP012	TXOUTP011	TXOUTP010	TXOUTP003	TXCLKOUTP00	TXOUTP002	TXOUTP001	TXOUTP000	GNDLA	TXCLKOUTP04	TXCLKOUTM04	AE
AF	TXOUTM013	TXCLKOUTM01	TXOUTM012	TXOUTM011	TXOUTM010	TXOUTM003	TXCLKOUTM00	TXOUTM002	TXOUTM001	TXOUTM000	GNDLA	TXOUTP043	TXOUTM043	AF

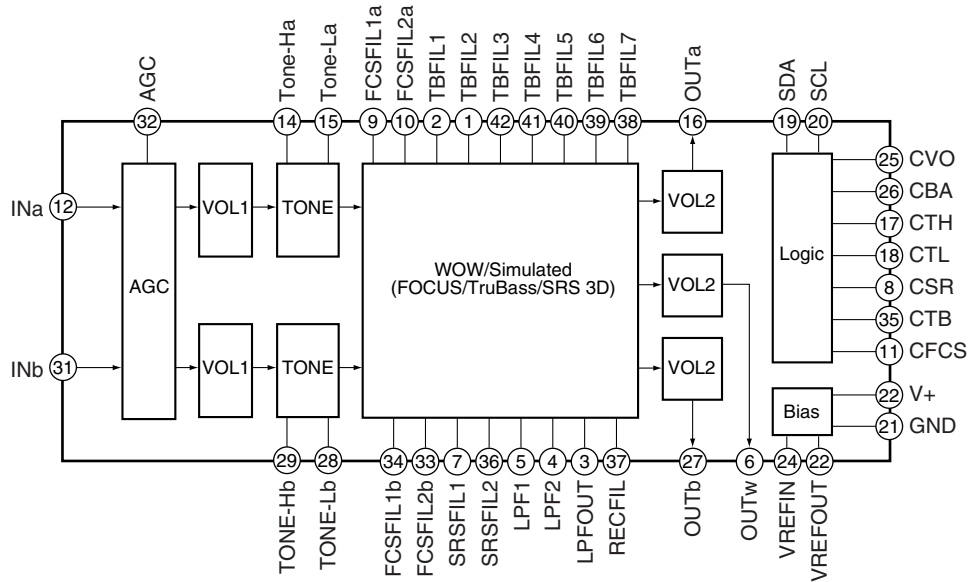
■ NJW1183L (HD AUDIO ASSY : IC3753)

• FOCUS & SRS IC

● Pin Arrangement (Top view)



● Block Diagram

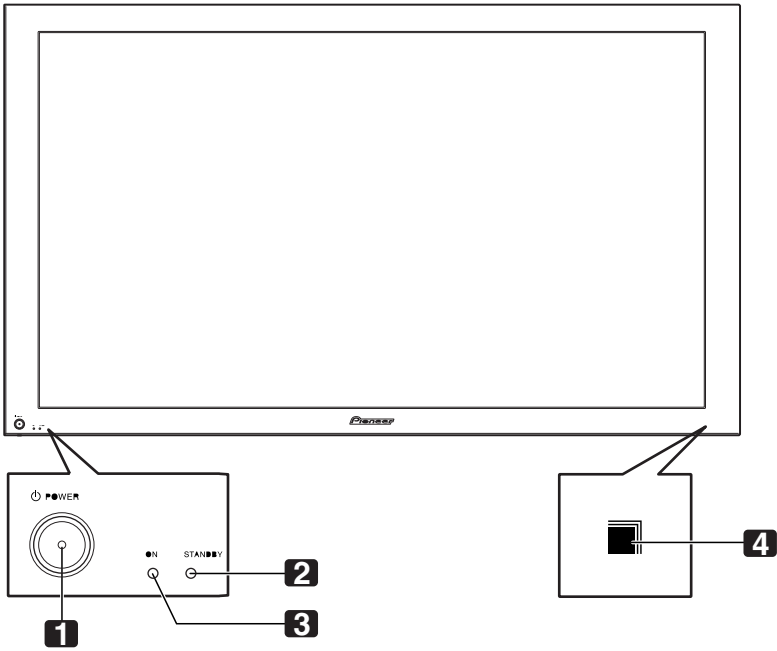


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8. PANEL FACILITIES

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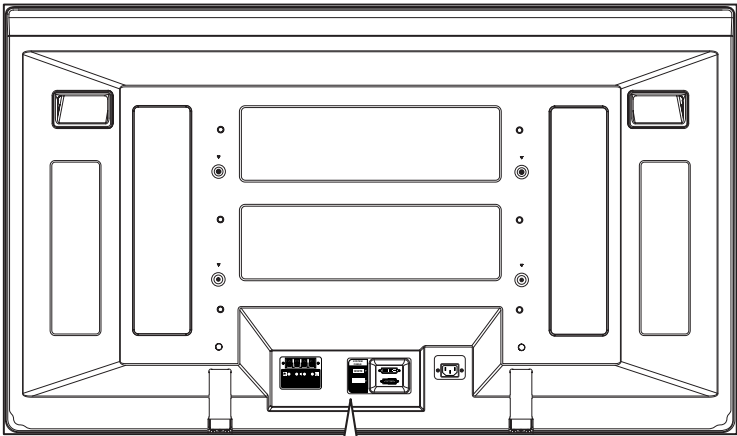
Front view



- C
- 1 POWER button
 - 2 STANDBY indicator
 - 3 POWER ON indicator
 - 4 Remote control sensor

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Rear view



- E
- F
- 5 SPEAKER (right/left) terminals
 - 6 SYSTEM CABLE terminal (BLACK)
 - 7 SYSTEM CABLE terminal (WHITE)
 - 8 AC IN terminal

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PDP-506PE

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■ Jigs list

Jig No.	Jig Name	Remarks
GGF1475	Special Communication Device	See to "6.2 RS-232C COMMAND".

B

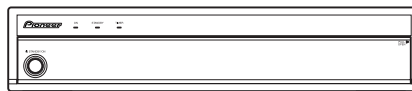
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Service Manual



PDP-R06U

ORDER NO.
ARP3279

MEDIA RECEIVER

PDP-R06U PRO-R06U

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R06U	KUCXJ	AC 120V	
PRO-R06U	KUCXJ	AC 120V	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-R06U, PRO-R06U	ARP3280	SCHEMATIC DIAGRAM, PCB CONNECTION DIAGRAM



For details, refer to "Important Check Points for good servicing".

1 2 3 4

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

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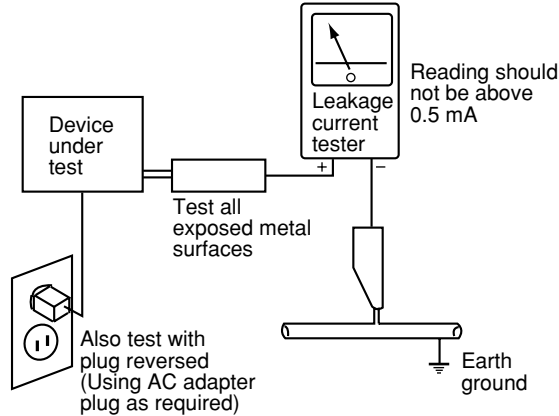
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

Item			Media Receiver, Model: PDP-R06U
Reception System (Digital)			ATSC Digital TV system
	Circuit type		8VSB/64QAM/256QAM/QPSK demodulation
	Tuner	VHF/UHF	VHF Ch. 2-13 UHF Ch. 14-69
		CATV	Ch. 2-135
	Audio format		Dolby Digital
Reception System (Analog)			American TV standard NTSC system
	Circuit type		Video signal detection PLL full synchronous detection, PLL digital synthesizer system
	Tuner	VHF/UHF	VHF Ch. 2-13 UHF Ch. 14-69
		CATV	ANT/CABLE A IN Ch. 1-135 ANT B IN Ch. 1-125
	Audio multiplex		BTSC system
Terminals	Rear	ANT/CABLE A IN	75 Ω UNBAL, F Type for DTV/VHF/UHF/CATV in
		ANT B IN	75 Ω UNBAL, F Type for VHF/UHF/CATV in Loop out
		i.LINK (TS)	S400 (2)
		INPUT 1	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in, HDMI in*
		INPUT 2	S-VIDEO in, VIDEO in, AUDIO in
		INPUT 3	COMPONENT VIDEO in, AUDIO in, HDMI in *
		MONITOR OUT	VIDEO out, AUDIO out
		Digital Audio Output	Optical (1)
		G-LINK	1
		CONTROL IN	1
		CONTROL OUT	1
		SUB WOOFER OUTPUT	Variable
		Cable CARD	Point of Deployment
	Front	INPUT 4	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in (Audio input is shared with PC INPUT.)
		PC	Analog RGB in, AUDIO in
On-screen display languages			English/French/Spanish
Power Requirement			120 V AC, 60 Hz, 35 W (26 W Standby)
Dimensions			420 (W) × 90 (H) × 299 (D) mm (16 9/16 (W) × 3 9/16 (H) × 11 13/16 (D) inches)
Weight			4.5 kg (9.9 lbs.)

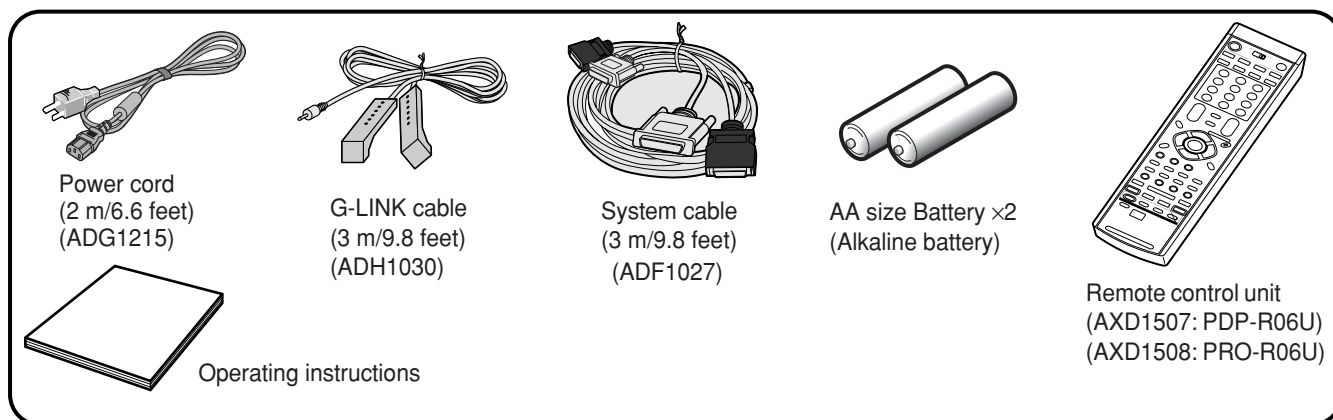
* : This conforms to HDMI1.1 and HDCP1.1.

HDMI (High Definition Multimedia Interface) is a digital interface that handles both video and audio using a single cable.


HDCP (High-bandwidth Digital Content Protection) is a technology used to protect copyrighted digital contents that use the Digital Visual Interface (DVI).

- Design and specifications are subject to change without notice.

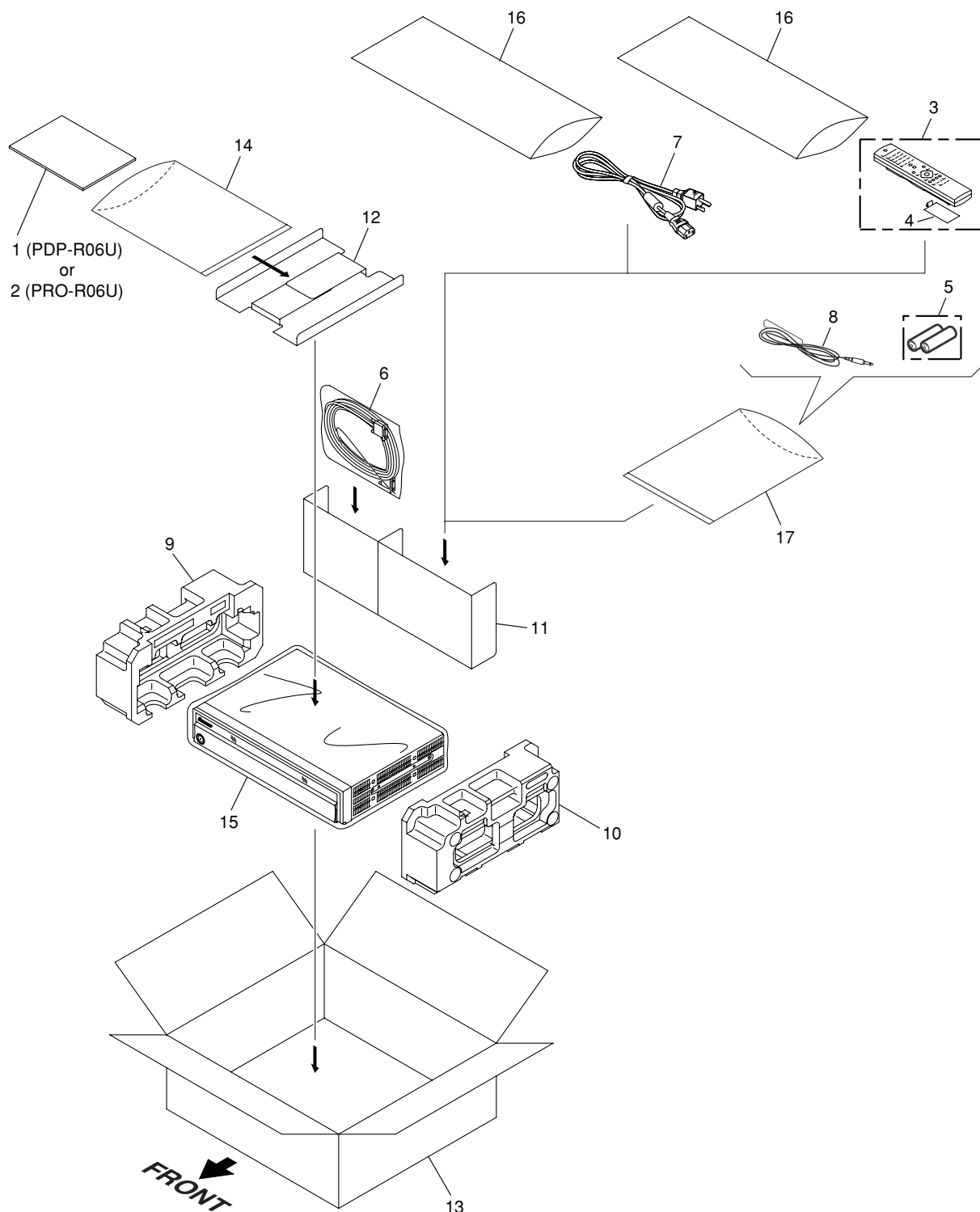
Accessories



2. EXPLODED VIEWS AND PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screws adjacent to ▼ mark on product are used for disassembly.
 - For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING SECTION



PDP-R06U

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(1) PACKING SECTION PARTS LIST

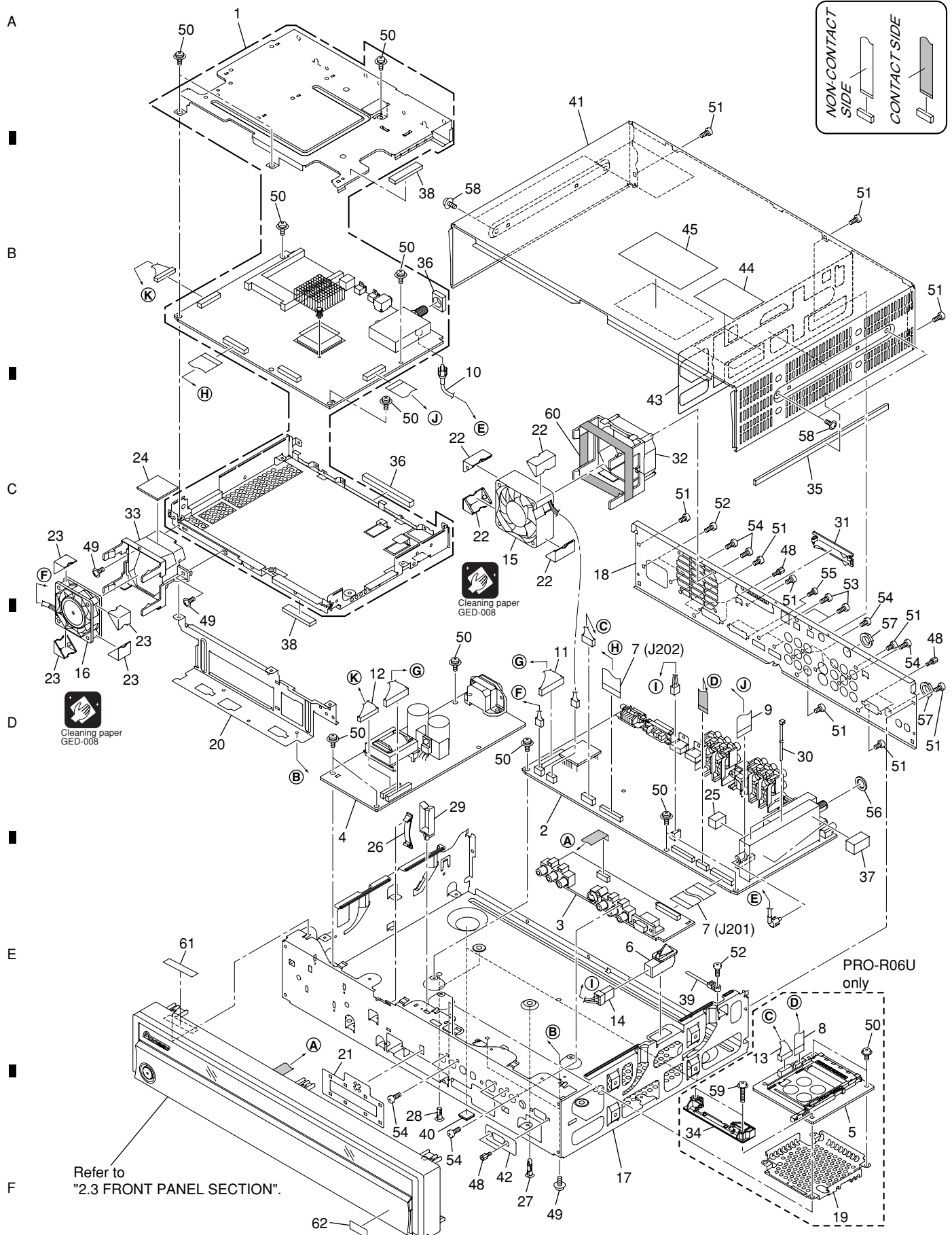
Mark	No.	Description	Part No.
	1	Operating Instructions (English, French, Spanish)	See Contrast table (2)
	2	Operating Instructions (English)	See Contrast table (2)
	3	Remote Control Unit	See Contrast table (2)
	4	Battery Cover	AZA7424
NSP	5	Dry Cell Battery (R6P, AA)	VEM1023
	6	System Cable (3m)	ADF1027
⚠	7	Power Cord	ADG1215
	8	G-LINK Cable (3m)	ADH1030
	9	Pad L	AHA2447
	10	Pad R	AHA2448
	11	Accessory Carton M	AHD3423
	12	Manual Case	AHD3428
	13	Carton	See Contrast table (2)
NSP	14	Catalogue Bag	AHG1340
	15	Laminate Sheet	AHG1350
	16	Air Cap Bag	AHG1351
NSP	17	Catalogue Bag	AHG1374

(2) CONTRAST TABLE

PDP-R06U/KUCXJ and PRO-R06U/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
	1	Operating Instructions (English, French, Spanish)	ARE1399	Not used
	2	Operating Instructions (English)	Not used	ARB1567
	3	Remote Control Unit	AXD1507	AXD1508
	13	Carton U	AHD3448	Not used
	13	Carton UE	Not used	AHD3447

2.2 EXTERIOR SECTION





(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
⚠ 1	MR DTB Assy	AWE1305	46	Label	See Contrast table (2)
⚠ 2	MR MAIN Assy	See Contrast table (2)	47	•••••	A
3	FRONT Assy	See Contrast table (2)	48	Hex Head Screw	BBA1051
⚠ 4	POWER SUPPLY Unit	AXY1113	49	Screw	ABZ30P060FTC
5	PC CARD Module	See Contrast table (2)	50	Screw	BBB30P080FTC
6	Power Switch (S1)	ASG1089	51	Screw	BBZ30P060FTB
7	Flexible Cable (J201)(J202)	ADD1311	52	Screw	BBZ30P100FTC
8	Flexible Cable (J206)	See Contrast table (2)	53	Screw	BMZ30P060FTC
9	Flexible Cable (J205)	ADD1317	54	Screw	BPZ30P080FTB
10	Antenna Cable (0.19m)	ADE1194	55	Screw	PMZ26P060FTB
11	16P Housing Wire (J101)	ADX3140	56	Washer	ABE1080
12	12P Housing Wire (J102)	ADX3141	57	Nut	BBN1005
13	6P Housing Wire (J103)	See Contrast table (2)	58	Screw	See Contrast table (2)
14	3P Housing Wire (J106)	ADX3143	59	Screw	See Contrast table (2)
⚠ 15	Fan Motor (60 x 25L)	AXM1047	60	TERAOKA No.570F 16mm(W)	GYH1001
⚠ 16	Fan Motor (52 x 15L)	AXM1051	61	SW Caution	See Contrast table (2)
17	Base Chassis	ANA1872	62	TV Guide Label	AAX3210
18	Terminal Panel	See Contrast table (2)			
⚠ 19	PC Shield	See Contrast table (2)			
20	Frame B	ANG2781			
⚠ 21	Shield Plate	ANG2838			C
22	Floating Rubber 60	AEB1410			
23	Floating Rubber 50	AEB1418			
24	Cushion Rubber	AEB1428			
25	Cushion Rubber	AEB1433			
26	Flat Clamp	AEC1858			
27	Circuit Board Spacer	AEC1969			
28	Circuit Board Spacer	AEC2028			
29	Re-used Wire Saddle	AEC2038			
30	Cable Tie	AEC2078			D
31	Rear Cover	AMR3425			
32	Fan Holder 60	AMR3451			
33	Fan Holder 50	AMR3456			
34	PC Guide	See Contrast table (2)			
⚠ 35	Gasket S	ANK1784			
36	Gasket	ANK1788			
37	Gasket	ANK1791			
38	Gasket	ANK1793			E
39	Jumper Band	BEC1228			
40	Rubber Foot	VEB1349			
41	Metal Bonnet	See Contrast table (2)			
42	Cover Sheet	See Contrast table (2)			
43	Side Cover Sheet	See Contrast table (2)			
44	Caution Label	See Contrast table (2)			
45	Caution Label	See Contrast table (2)			

(2) CONTRAST TABLE

PDP-R06U/KUCXJ and PRO-R06U/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
A		2 MR MAIN Assy	AWV2225	AWV2223
		3 FRONT Assy	AWW1046	AWW1044
		5 PC CARD Module	Not used	AXY1073
		8 Flexible Cable (J206)	Not used	ADD1313
		13 6P Housing Wire (J103)	Not used	ADX3142
B		18 Terminal Panel U	ANC2383	Not used
		18 Terminal Panel UE	Not used	ANC2376
		19 PC Shield	Not used	ANG2578
		34 PC Guide	Not used	AMR3468
		41 Metal Bonnet	ANE1653	ANE1652
		42 Cover Sheet	Not used	AAK2850
		43 Side Cover Sheet	Not used	AAK2851
		44 Caution Label (U)	AAX3282	Not used
		44 Caution Label (UE)	Not used	AAX3279
		45 Caution Label	Not used	AAX3239
		46 Label	Not used	AAX3247
		58 Screw	ABZ30P060FTC	ABZ30P060FTB
		59 Screw	Not used	ABZ30P180FTC
		61 Power SW Caution U	AAX3249	Not used
		61 Power SW Caution UE	Not used	AAX3280

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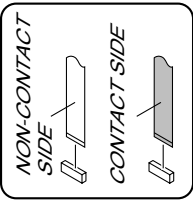
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PDP-R06U

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2.3 FRONT PANEL SECTION

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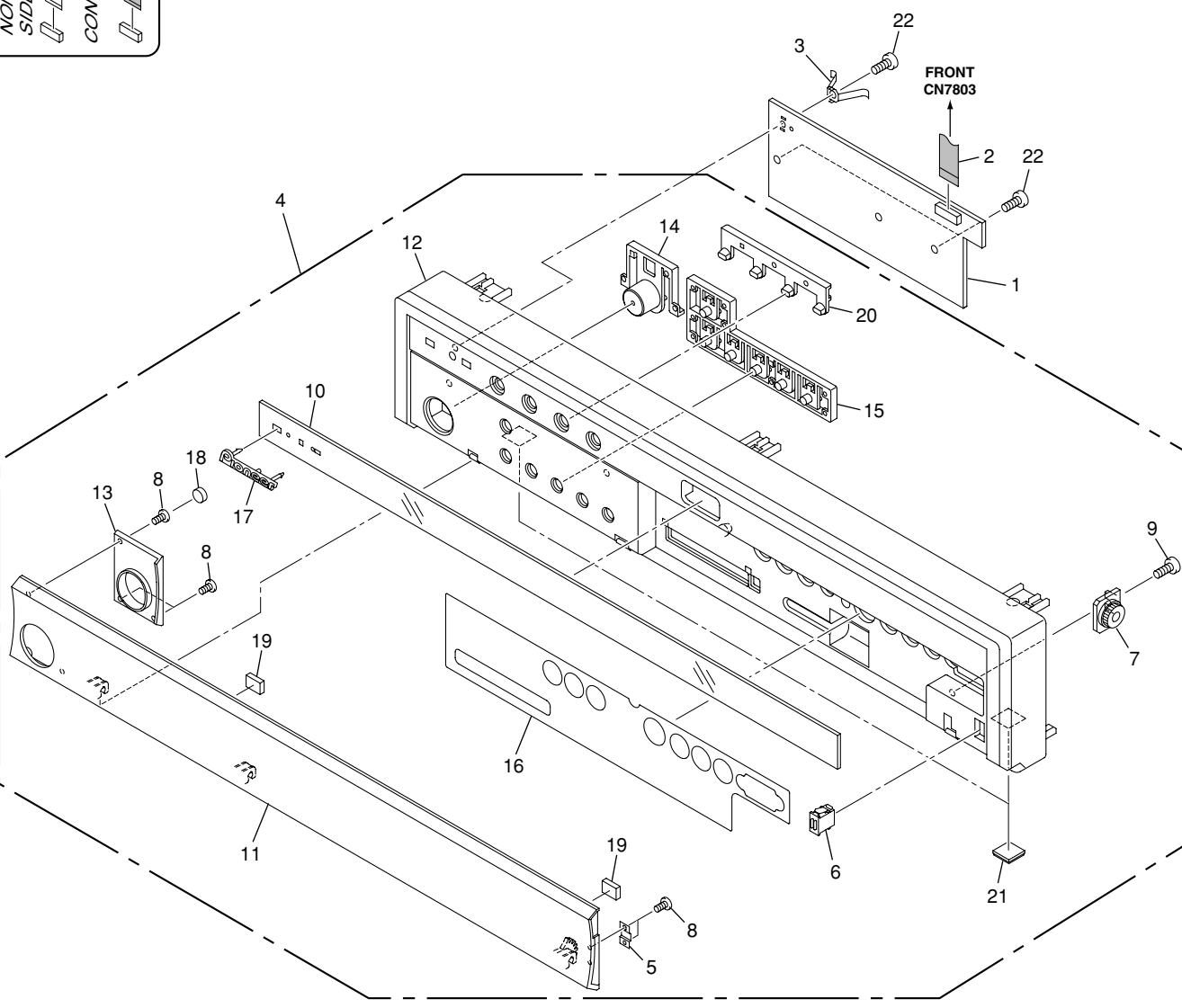
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(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	LED Assy	AWW1045
	2	Flexible Cable (J207)	ADD1314
⚠	3	Earth Metal	BNG1336
	4	Front Panel Assy	See Contrast table (2)
	5	Magnet Catcher	See Contrast table (2)
	6	Magnet Holder Assy	AEC1077
	7	Gear Damper	AXA1019
	8	Screw (2 x 3.5)	See Contrast table (2)
	9	Screw	BPZ30P080FTB
	10	Indicator Panel	See Contrast table (2)
	11	Door	See Contrast table (2)
	12	Front Panel	See Contrast table (2)
	13	Escutcheon Ring	See Contrast table (2)
NSP	14	Power Button	See Contrast table (2)
NSP	15	Operation Button	AAD4140
	16	Sealing Sheet	See Contrast table (2)
	17	Pioneer Name Plate	See Contrast table (2)
	18	Door Cushion	See Contrast table (2)
	19	Door Cushion S	See Contrast table (2)
NSP	20	LED Lens	AMR3452
	21	Rubber Foot	VEB1349
	22	Screw	BPZ30P080FTB

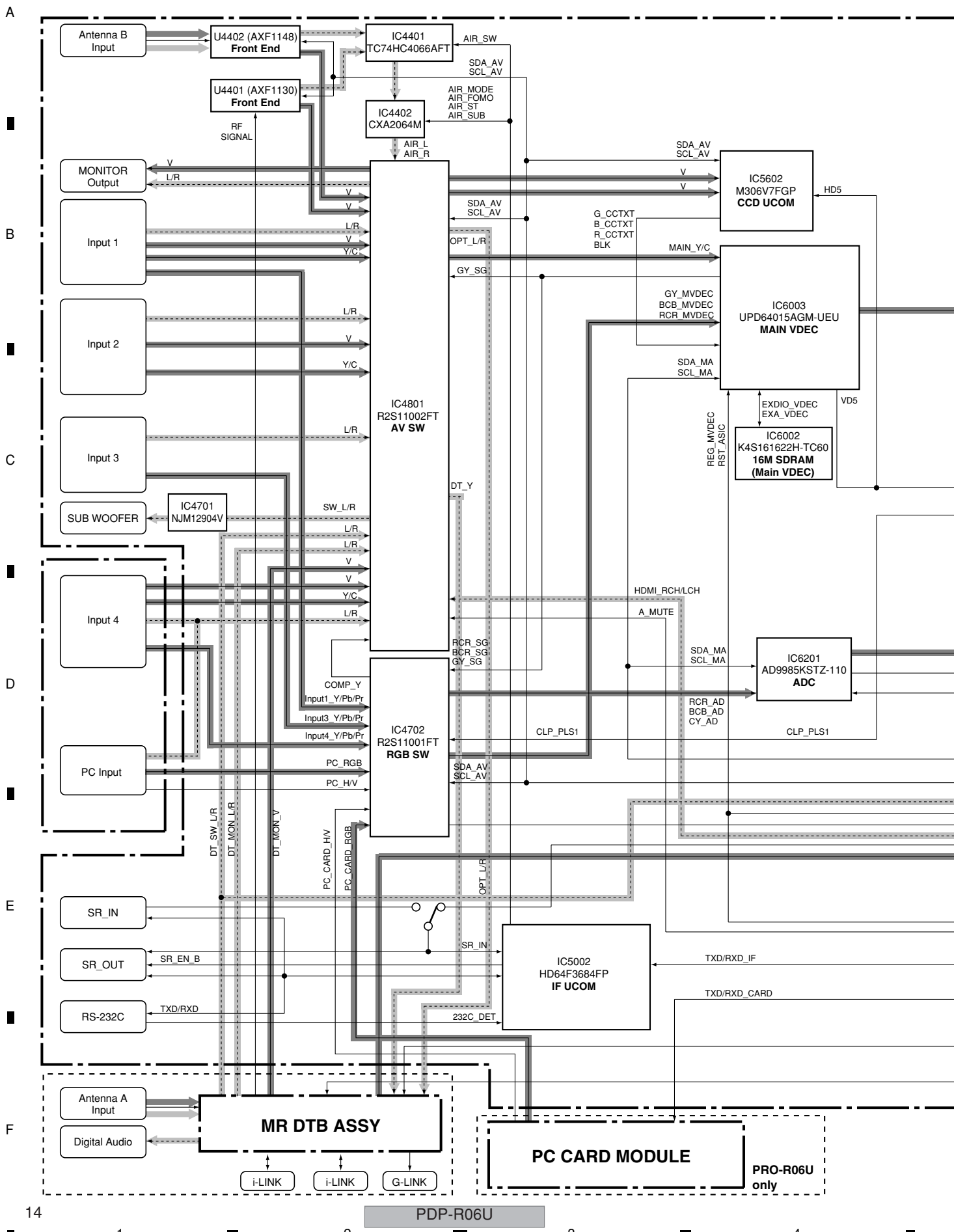
(2) CONTRAST TABLE

PDP-R06U/KUCXJ and PRO-R06U/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
	4	Front Panel Assy U	AXG1036	Not used
	4	Front Panel Assy UE	Not used	AXG1031
	5	Magnet Catcher	ANG2820	ANG2821
	8	Screw (2 x 3.5)	ABA1329	ABA1330
	10	Indicator Panel (U)	AAK2847	Not used
	10	Indicator Panel (UE)	Not used	AAK2842
	11	Door (U)	AAN1484	Not used
	11	Door (UE)	Not used	AAN1480
	12	Front Panel (U)	AMB2872	Not used
	12	Front Panel (UE)	Not used	AMB2864
	13	Escutcheon Ring	AAD4134	Not used
	13	Escutcheon Ring (UE)	Not used	AAD4138
NSP	14	Power Button	AAD4135	Not used
NSP	14	Power Button (UE)	Not used	AAD4141
	16	Sealing Sheet (U)	AAL2674	Not used
	16	Sealing Sheet UE	Not used	AAL2666
	17	Pioneer Name Plate	AAM1107	VAM1109
	18	Door Cushion	AEB1412	Not used
	18	Door Cushion (UE)	Not used	AEB1419
	19	Door Cushion S	AEB1425	Not used
	19	Door Cushion S (UE)	Not used	AEB1426

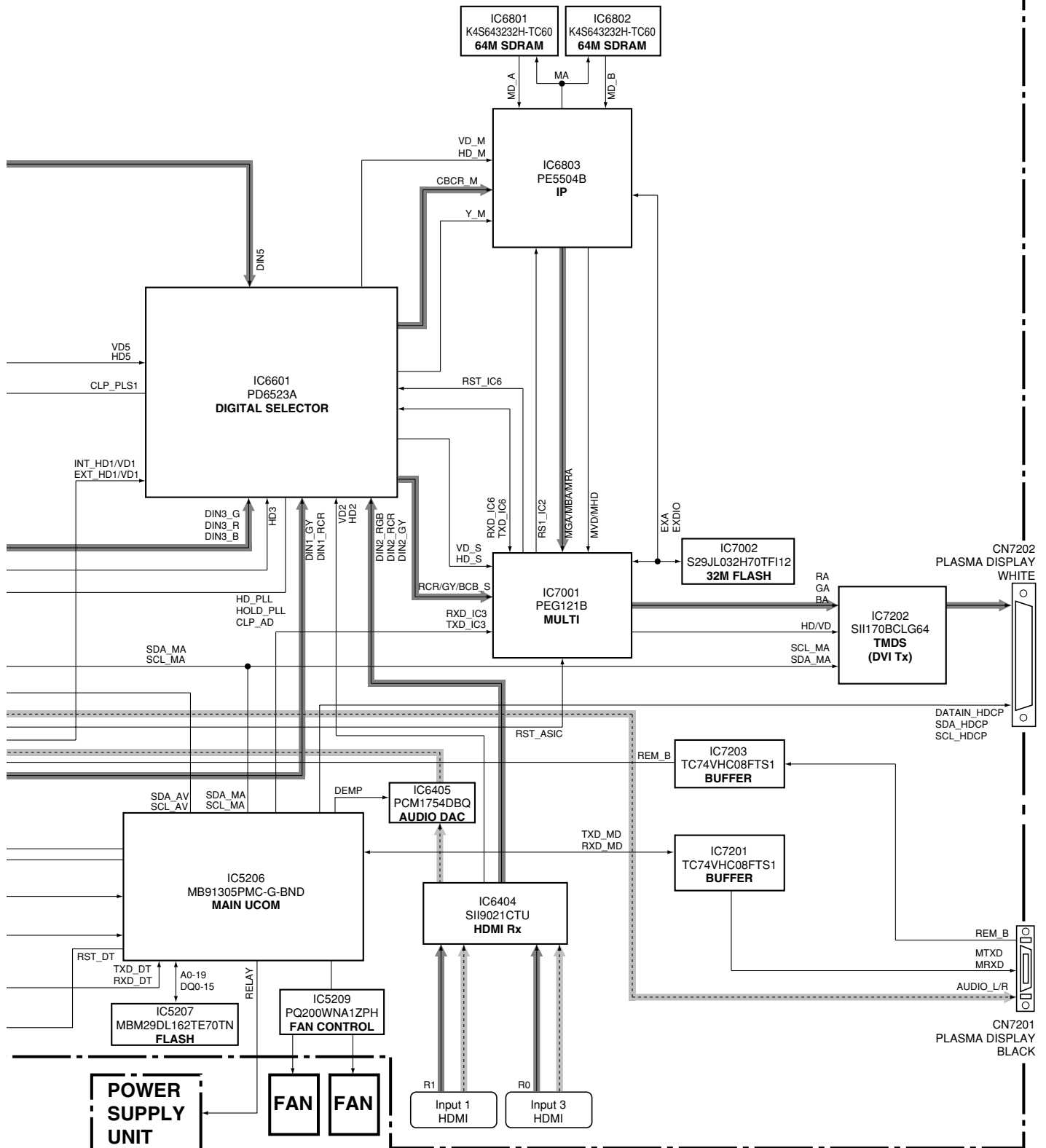
3. BLOCK DIAGRAM

3.1 OVERALL BLOCK DIAGRAM



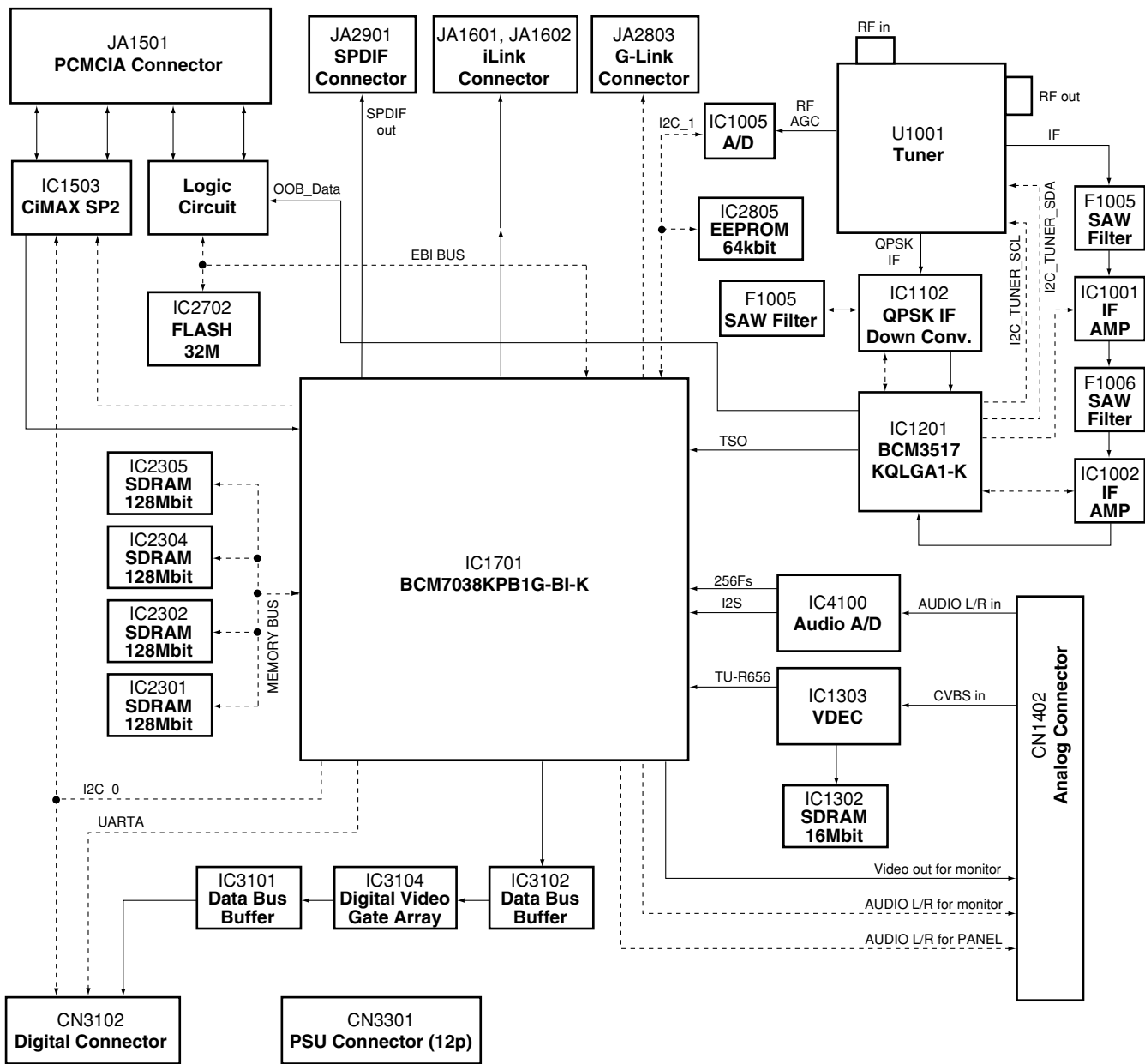
➡ : Video Signal Route
➡ : Audio Signal Route

MR MAIN ASSY



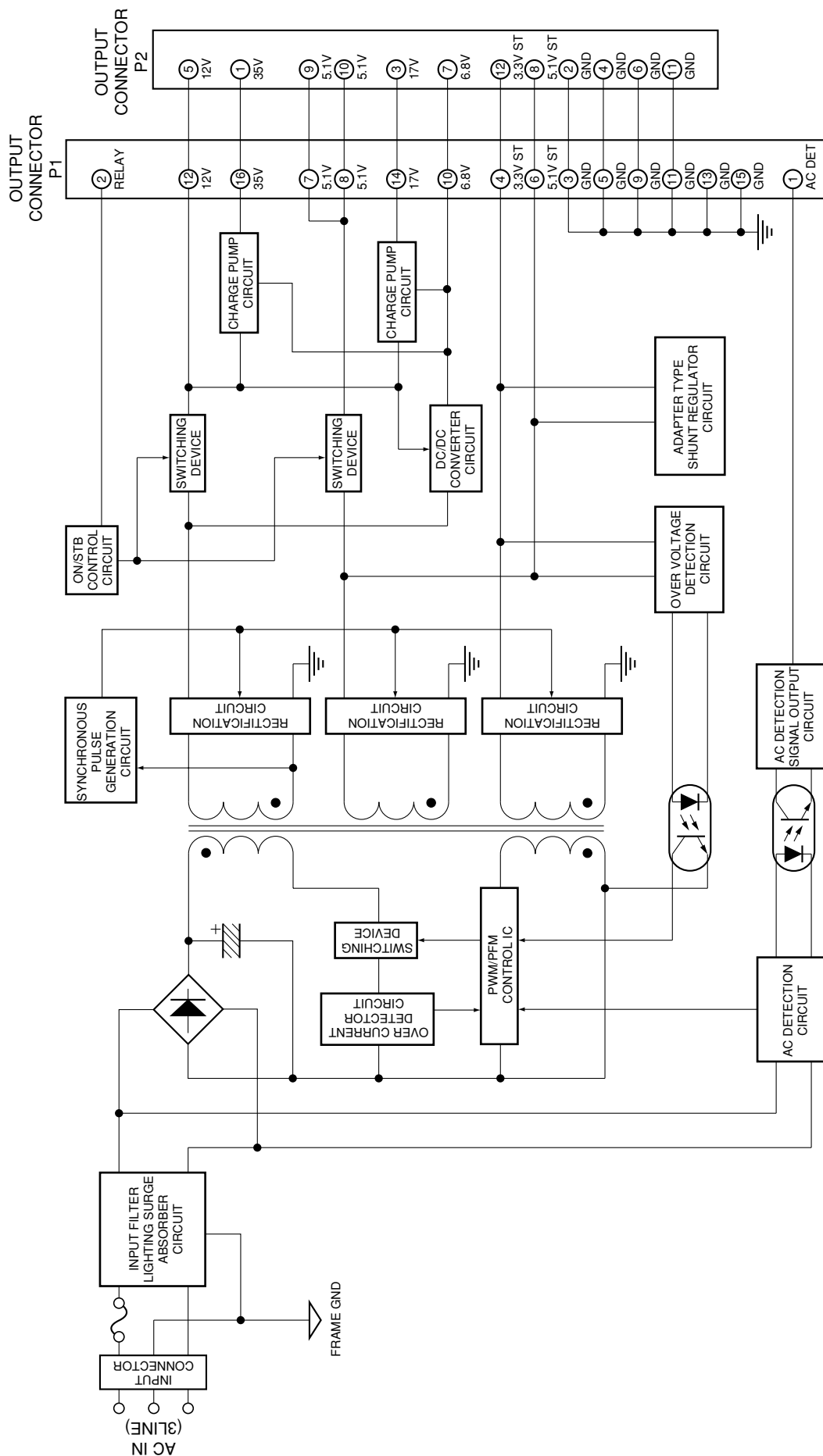
3.2 MR DTB ASSY

MR DTB ASSY

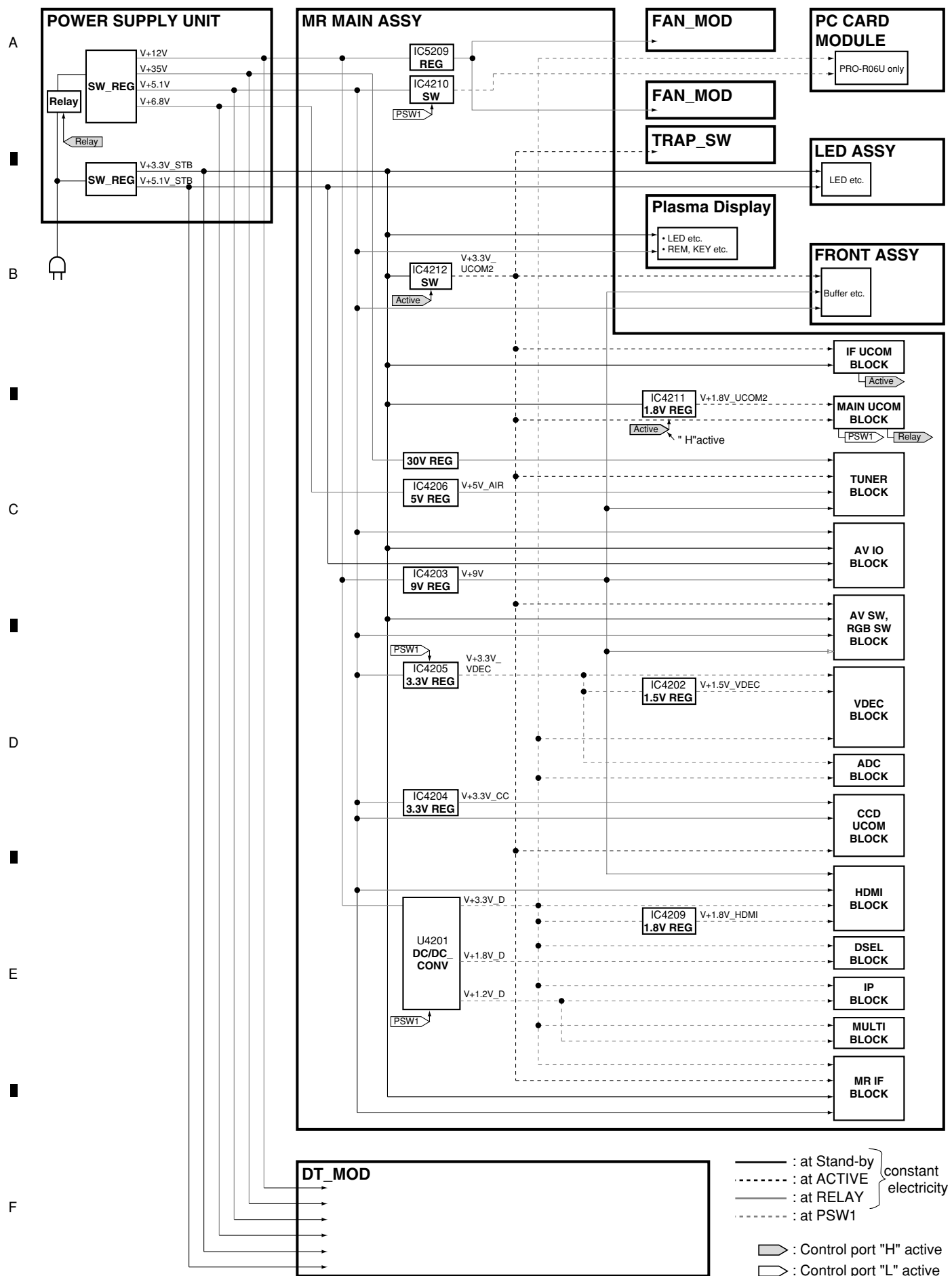


3.3 POWER SUPPLY UNIT

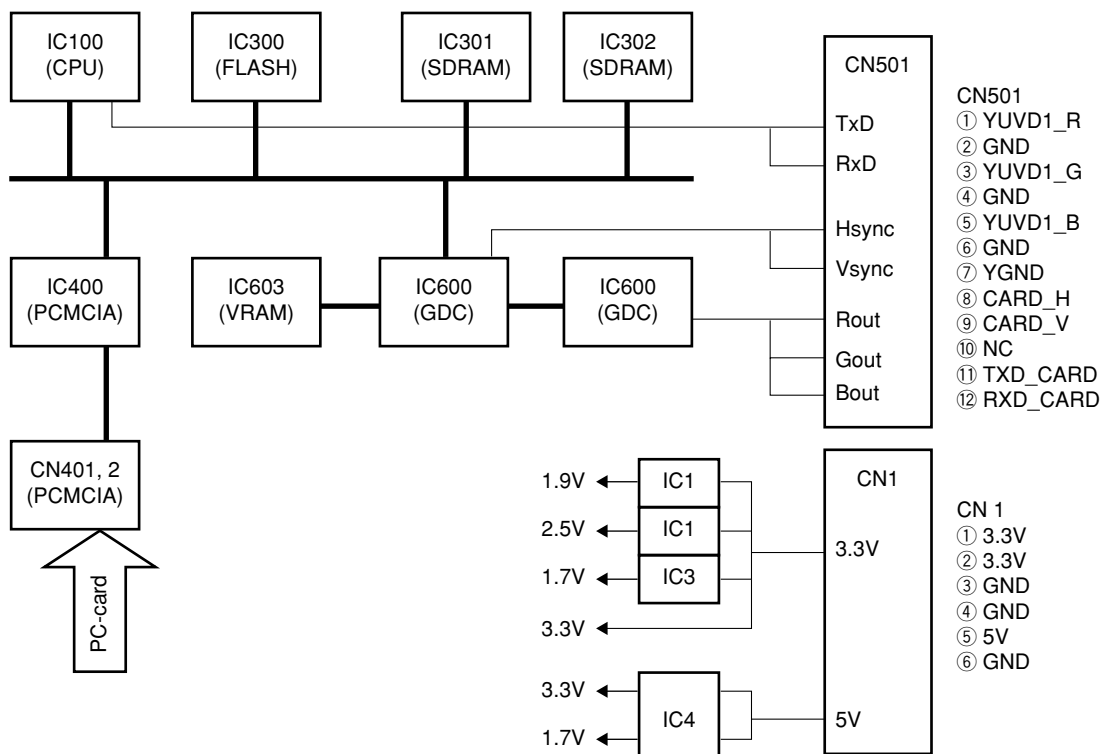
POWER SUPPLY UNIT



3.4 POWER SUPPLY SIGNAL ROUTE



PC CARD MODULE



3.6 VOLTAGES

FRONT ASSY

MR MAIN ASSY

CN7804 (AKM1236)		Voltage (V)	CN4001 (AKM1236)	
No.	Pin Name		Pin Name	No.
1	V+3_3V_STB	3.4	V+3_3V_STB	50
2	LED_ON	0	LED_ON	49
3	LED_OFF	3.4	LED_OFF	48
4	GND	0	GND	47
5	V+5_1V_STB	5.1	V+5_1V_STB	46
6	LED_FCT	3.4	LED_FCT	45
7	KEY_AD1	3.4	KEY_AD1	44
8	KEY_AD2	3.4	KEY_AD2	43
9	GND	0	GND	42
10	GND	0	GND	41
11	GND	0	GND	40
12	GND	0	GND	39
13	PC_V	0	PC_V	38
14	GND	0	GND	37
15	PC_H	0	PC_H	36
16	GND	0	GND	35
17	PC_G	2.5	PC_G	34
18	GND	0	GND	33
19	PC_B	2.5	PC_B	32
20	GND	0	GND	31
21	PC_R	2.5	PC_R	30
22	GND	0	GND	29
23	GND	0	GND	28
24	INPUT4_PLUG	0	INPUT4_PLUG	27
25	INPUT4_Y	2.5	INPUT4_Y	26
26	GND	0	GND	25
27	GND	0	GND	24
28	INPUT4_PB	2.5	INPUT4_PB	23
29	GND	0	GND	22
30	GND	0	GND	21
31	INPUT4_PR	2.5	INPUT4_PR	20
32	GND	0	GND	19
33	GND	0	GND	18
34	INPUT4_Y	2.5	INPUT4_Y	17
35	GND	0	GND	16
36	INPUT4_C	2.2	INPUT4_C	15
37	GND	0	GND	14
38	INPUT4_SPLUG	5.0	INPUT4_SPLUG	13
39	INPUT4_S2	0	INPUT4_S2	12
40	GND	0	GND	11
41	INPUT4_V	2.5	INPUT4_V	10
42	GND	0	GND	9
43	INPUT4_L	4.5	INPUT4_L	8
44	GND	0	GND	7
45	INPUT4_R	4.5	INPUT4_R	6
46	GND	0	GND	5
47	WE_ROM	0	WE_ROM	4
48	V+3_3V_UCOM	3.4	V+3_3V_UCOM	3
49	V+5V_A	5.0	V+5V_A	2
50	V+9V_A	9.0	V+9V_A	1

FRONT ASSY

LED ASSY

CN7803 (AKM1233)		Voltage (V)	CN8001 (CKS3826)	
No.	Pin Name		Pin Name	No.
1	GND	0	GND	12
2	GND	0	GND	11
3	GND	0	GND	10
4	GND	0	GND	9
5	KEY_AD2	3.4	KEY_AD2	8
6	KEY_AD1	3.4	KEY_AD1	7
7	LED_REC	3.4	LED_REC	6
8	V+5_1V_STB	5.1	V+5_1V_STB	5
9	LED_MDM	0	LED_MDM	4
10	LED_OFF	3.4	LED_OFF	3
11	LED_ON	0	LED_ON	2
12	V+3_3V_STB	3.4	V+3_3V_STB	1

FAN

MR MAIN ASSY

		Voltage (V)	CN4007 (AKM1274)	
No.	Pin Name		Pin Name	No.
—	—	7.0	FAN_12V	1
—	—	0	FAN_NG2	2
—	—	0	GND	3

FAN

MR MAIN ASSY

		Voltage (V)	CN4009 (AKM1274)	
No.	Pin Name		Pin Name	No.
—	—	7.0	FAN_12V	1
—	—	0	FAN_NG1	2
—	—	0	GND	3

TRAP-SW

MR MAIN ASSY

		Voltage (V)	CN4015 (AKM1213)	
No.	Pin Name		Pin Name	No.
—	—	3.4	TRAP_SW	1
—	—	—	—	2
—	—	3.4	V+3_3V_UCOM2	3

PC CARD MODULE

MR MAIN ASSY

CN501 (HFW12S-2STEI)		Voltage (V)	CN4003 (AKM1233)	
No.	Pin Name		Pin Name	No.
1	PC_CARD_R	0	PC_CARD_R	12
2	GND	0	GND	11
3	PC_CARD_G	0	PC_CARD_G	10
4	GND	0	GND	9
5	PC_CARD_B	0	PC_CARD_B	8
6	GND	0	GND	7
7	GND	0	GND	6
8	PC_CARD_H	3.3	PC_CARD_H	5
9	PC_CARD_V	3.3	PC_CARD_V	4
10	NC	0	NC	3
11	TXD_CARD	3.3	TXD_CARD	2
12	RXD_CARD	3.3	RXD_CARD	1

POWER SUPPLY UNIT

MR MAIN ASSY

CN101 (KM200NA16)		Voltage (V)	CN4006 (KM200NA16)	
No.	Pin Name		Pin Name	No.
16	V+35V	36.0	V+35V	16
15	GND	0	GND	15
14	V+17V	19.0	V+17V	14
13	GND	0	GND	13
12	V+12V	12.3	V+12V	12
11	GND	0	GND	11
10	V+6_8V	6.6	V+6_8V	10
9	GND	0	GND	9
8	V+5_1V	5.1	V+5_1V	8
7	V+5_1V	5.1	V+5_1V	7
6	V+5_1V_STB	5.1	V+5_1V_STB	6
5	GND	0	GND	5
4	V+3_3V_STB	3.4	V+3_3V_STB	4
3	GND	0	GND	3
2	RELAY	3.4	RELAY	2
1	AC_DET	3.4	AC_DET	1

POWER SUPPLY UNIT

MR DTB ASSY

CN102 (KM200NA12)		Voltage (V)	CN3301 (AKM1298)	
No.	Pin Name		Pin Name	No.
1	V+35V	36.0	V+35V	1
2	GND	0	GND	2
3	V+17V	19.0	V+17V	3
4	GND	0	GND	4
5	V+12V	12.3	V+12V	5
6	GND	0	GND	6
7	V+6_5V	6.6	V+6_5V	7
8	V+5_1V_STB	5.1	V+5_1V_STB	8
9	V+5_1V	5.1	V+5_1V	9
10	V+5_1V	5.1	V+5_1V	10
11	GND	0	GND	11
12	V+3_3V_STB	3.4	V+3_3V_STB	12

PC CARD MODULE

MR MAIN ASSY

CN1 (B8B-PH-SM3)		Voltage (V)	CN4002 (AKM1277)	
No.	Pin Name		Pin Name	No.
1	V+3V_CARD	3.3	V+3V_CARD	1
2	V+3V_CARD	3.3	V+3V_CARD	2
3	GND	0	GND	3
4	GND	0	GND	4
5	V+5V_CARD	5.1	V+5V_CARD	5
6	GND	0	GND	6

MR DTB ASSY

MR MAIN ASSY

CN1402 (AKM1217)		Voltage (V)	CN4005 (AKM1303)	
No.	Pin Name		Pin Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	DT_MON_R	4.8	DT_MON_R	3
4	GND	0	GND	4
5	DT_MON_L	4.8	DT_MON_L	5
6	GND	0	GND	6
7	DT_SP_R	4.8	DT_SP_R	7
8	GND	0	GND	8
9	DT_SP_L	4.8	DT_SP_L	9
10	GND	0	GND	10
11	OPT_R	0	OPT_R	11
12	GND	0	GND	12
13	OPT_L	0	OPT_L	13
14	GND	0	GND	14
15	NOT_USE	0	NOT_USE	15
16	GND	0	GND	16
17	GND	0	GND	17
18	NOT_USE	0	NOT_USE	18
19	GND	0	GND	19
20	GND	0	GND	20
21	NOT_USE	0	NOT_USE	21
22	GND	0	GND	22
23	GND	0	GND	23
24	DT_Y	2.2	DT_Y	24
25	GND	0	GND	25
26	GND	0	GND	26
27	DT_MON_V	2.9	DT_MON_V	27
28	GND	0	GND	28
29	GND	0	GND	29
30	NOT_USE	0	NOT_USE	30
31	GND	0	GND	31
32	GND	0	GND	32
33	TEMP3	0	TEMP3	33
34	GND	0	GND	34
35	GND	0	GND	35
36	LED_FCT	3.4	LED_FCT	36
37	RST3	0	RST3	37
38	RST_DT	3.4	RST_DT	38
39	DT_DET	0	DT_DET	39
40	GND	0	GND	40

MR DTB ASSY

MR MAIN ASSY

CN3102 (AKM1236)		Voltage (V)	CN4004 (AKM1201)	
No.	Pin Name		Pin Name	No.
1	GND	0	GND	1
2	TXD_DT	3.4	TXD_DT	2
3	RXD_DT	3.4	RXD_DT	3
4	GND	0	GND	4
5	DT_FNC	0	DT_FNC	5
6	GND	0	GND	6
7	NC		NC	7
8	NC		NC	8
9	NC		NC	9
10	NC		NC	10
11	NC		NC	11
12	NC		NC	12
13	NC		NC	13
14	NC		NC	14
15	NC		NC	15
16	NC		NC	16
17	NC		NC	17
18	NC		NC	18
19	NC		NC	19
20	GND	0	GND	20
21	GND	0	GND	21
22	GND	0	GND	22
23	GND	0	GND	23
24	NC	0	NC	24
25	GND	0	GND	25
26	GND	0	GND	26
27	NC	0	NC	27
28	GND	0	GND	28
29	GND	0	GND	29
30	GND	0	GND	30
31	GND	0	GND	31
32	GND	0	GND	32
33	NC		NC	33
34	NC		NC	34
35	NC		NC	35
36	NC		NC	36
37	NC		NC	37
38	NC		NC	38
39	NC		NC	39
40	NC		NC	40
41	NC		NC	41
42	NC		NC	42
43	NC		NC	43
44	NC		NC	44
45	NC		NC	45
46	NC		NC	46
47	NC		NC	47
48	NC		NC	48
49	NC		NC	49
50	NC		NC	50

5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 ●The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
 Therefore, when replacing, be sure to use parts of identical designation.
 ●When ordering resistors, first convert resistance values into code form as shown in the following examples.
 Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10¹ → 561 RD1/4PU 5 6 1 J
 47k Ω → 47 x 10³ → 473 RD1/4PU 4 7 3 J
 0.5 Ω → R50 RN2H R 5 0 K
 1 Ω → 1R0 RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
 5.62k Ω → 562 x 10¹ → 5621 RN1/4PC 5 6 2 1 F

LIST OF HOLE PCB ASSEMBLIES

Mark	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
⚠	1..MR DTB ASSY	AWE1305	AWE1305
⚠	1..MR MAIN ASSY	AWV2225	AWV2223
NSP ⚠	1..MR FUKUGO ASSY	AWV2226	AWV2224
	2..LED ASSY	AWW1045	AWW1045
	2..FRONT ASSY	AWW1046	AWW1044
⚠	1..POWER SUPPLY UNIT	AXY1113	AXY1113

MR MAIN ASSY

AWV2225 and AWV2223 are constructed the same except for the following :

Mark	Symbol and Description	AWV2225	AWV2223
	[BOARD IF BLOCK]		
	R4017,R4018	RS1/16SS474J	Not used
	R4024	Not used	RS1/16SS0R0J
	R4025	RS1/16SS0R0J	Not used
	CN4002 PH CONNECTOR 6P	Not used	AKM1277
	CN4003 12P FFC CONNECTOR	Not used	AKM1233
	[MR REG BLOCK]		
	IC4210	Not used	BD6522F
	Q4203	Not used	DTC124EUA
	F4204 EMI FILTER	Not used	CCG1162
	L4202 INDUCTOR	Not used	BTH1111
	L4206 CHIP FERRITE BEAD	Not used	BTX1042
	C4202,C4207,C4268	Not used	CKSSYF104Z16
	C4218 (10/6.3V)	Not used	ACG7046
	C4267	Not used	CEHVKW101M6R3
	R4202	Not used	RS1/16SS103J
	[AV IO BLOCK]		
	JA4601 4P MINI DIN SOCKET	AKP1234	AKP1235
	JA4605 9P PIN JACK	AKB1319	AKB1323
	[MAIN UCOM BLOCK]		
	R5243	Not used	RS1/16SS103J
	R5251	RS1/16SS103J	Not used
	[MR RGB SW BLOCK]		
	JA4701 9P PIN JACK	AKB1329	AKB1322

FRONT ASSY

AWW1046 and AWW1044 are constructed the same except for the following :

Mark	Symbol and Description	AWW1046	AWW1044
	R7869	Not used	RS1/16SS0R0J
	R7870	RS1/16SS0R0J	Not used
	JA7801 4P MINI DIN SOCKET	AKP1238	AKP1239
	JA7803 PIN JACK (3P)	AKB1303	AKB1304
	JA7805 PIN JACK (3P)	AKB1305	AKB1306

PCB PARTS LIST FOR PDP-R06U/KUCXJ UNLESS OTHER WISE NOTED

Mark No.	Description	Part No.	Mark No.	Description	Part No.
MR DTB ASSY			CAPACITORS		
[TUNER IF BLOCK]			C1108		CCSSCH100D50
SEMICONDUCTORS			C1106,C1115,C1124		CCSSCH101J50
IC1005		MCP3021A5-I/OTG	C1110		CCSSCH120J50
IC1001,IC1002		UPC3219GV	C1107,C1109,C1117		CCSSCH270J50
Q1002-Q1004		2SC5084	C1111,C1119		CCSSCH390J50
Q1007		BB504CDS	C1118		CCSSCH560J50
Q1005		DTC143EUA	C1103,C1112,C1128,C1129		CKSSYB102K50
COILS AND FILTERS			C1133,C1134		CKSSYB102K50
F1006 SAW FILTER		ATF1219	C1101,C1102,C1104,C1105,C1116		CKSSYB103K16
F1005 SAW FILTER		BTF1130	C1121,C1122,C1127		CKSSYB103K16
L1001,L1005 CHIP COIL		BTH1121	C1123		CKSSYB271K50
L1004		LCTAW1R5J2520	RESISTORS		
L1007		LCYA10NJ2520	All Resistors		RS1/16S###J
L1006		LCYAR82J2520	[F/E IC BLOCK]		
F1002-F1004,F1007,F1008		VTF1084	SEMICONDUCTORS		
FERRITE BEAD			IC1201		BCM3517KQLGA1
CAPACITORS			COILS AND FILTERS		
C1022		ACH1429	L1203 CHIP BEAD FILTER		BTX1042
C1017		BCG1054	L1201		LCTAW1R8J2520
C1010		CCSSCK2R0C50	F1201,F1202,F1204-F1206		VTF1084
C1027		CEHVKW100M50	FERRITE BEAD		
C1003		CEHVKW101M6R3	CAPACITORS		
C1026		CKSQYB225K10	C1235,C1257-C1259		BCG1054
C1028		CKSSYB102K50	C1201,C1203,C1218		BCG1059
C1001,C1002,C1004-C1007		CKSSYB103K16	C1229,C1234		CCSSCH120J50
C1011-C1014,C1018,C1019		CKSSYB103K16	C1228,C1233		CCSSCH9R0D50
C1023-C1025,C1036-C1039		CKSSYB103K16	C1250		CKSSYB102K50
C1016,C1029,C1031		CKSSYB104K10	C1204-C1214,C1216,C1217		CKSSYB103K16
RESISTORS			C1219-C1225,C1230,C1231		CKSSYB103K16
R1011		RS1/16SS1001F	C1237-C1239,C1241-C1249		CKSSYB103K16
R1035		RS1/16SS1502F	C1252-C1255		CKSSYB103K16
R1018		RS1/16SS2201F	C1215,C1236,C1251,C1256		CKSSYB104K10
R1025		RS1/16SS4701F	RESISTORS		
R1024		RS1/16SS4703F	R1201,R1227-R1229		RAB4CQ330J
R1036		RS1/16SS5602F	R1213,R1217		RS1/16S3010F
R1045		RS1/16SS6801F	Other Resistors		RS1/16S###J
R1026		RS1/16SS6802F	OTHERS		
Other Resistors		RS1/16S###J	X1201 CRYSTAL RESONATOR		BSS1134
OTHERS			[VIDEO IC BLOCK]		
△U1001 DIGITAL FRONT END		AXF1151	SEMICONDUCTORS		
[QPSK RX BLOCK]			IC1302		HY57V161610ETP-8
SEMICONDUCTORS			IC1303		TVP5160PNP
IC1102		UPC3220GR	Q1301-Q1303,Q1306		2SC4081
COILS AND FILTERS			COILS AND FILTERS		
F1101 FERRITE BEAD		VTF1084	L1301		LCYA220J2520
F1102 SAW FILTER		ATF1215	F1301-F1305,F1307 FERRITE BEAD		VTF1084
L1107		LCTAW1R5J2520	CAPACITORS		
L1104		LCYA56NJ2520	C1302,C1315,C1348,C1349		BCG1054
L1103,L1105		LCYA68NJ2520	C1336		BCG1059
L1102,L1108		LCYA82NJ2520	C1337		CCSSCH470J50
L1106		LCYAR10J2520	C1342		CCSSCH560J50
			C1341		CCSSCH7R0D50

Mark No. Description**Part No.**

C1346,C1347
C1301
C1335,C1350,C1353,C1354
C1303-C1314,C1316-C1334
C1338-C1340,C1343-C1345

CCSSCH8R0D50
CKSSYB102K50
CKSSYB103K16
CKSSYB104K10
CKSSYB104K10

C1351,C1352

CKSSYB104K10

RESISTORS

R1301,R1302
R1309
R1311,R1319,R1377
Other Resistors

RAB4CQ101J
RS1/16SS1201F
RS1/16SS6800F
RS1/16S###J

OTHERS

X1301 CRYSTAL RESONATOR
(14.31818MHz)

BSS1119

**[A-A/D, AV-IF BLOCK]
SEMICONDUCTORS**

IC1404
IC1402

NJM2068V
PCM1803DB

COILS AND FILTERS

F1401,F1402,F1404 FERRITE BEAD VTF1084

CAPACITORS

C1401,C1402,C1412,C1418,C1419
C1403,C1408
C1416,C1421
C1406,C1413,C1417,C1422
C1404,C1409,C1414,C1423,C1424

BCG1054
BCG1059
CKSRYB105K10
CKSSYB103K16
CKSSYB104K10

C1407,C1420
C1405

CKSSYB271K50
DCH1165

RESISTORS

R1414,R1436
R1412,R1429
Other Resistors

RS1/16SS1002F
RS1/16SS2402F
RS1/16S###J

OTHERS

CN1402 40P CONNECTOR

AKM1217

**[POD IC BLOCK]
SEMICONDUCTORS**

IC1503
IC1504
IC1502
IC1506
IC1505,IC1507

CIMAXSP2L
SN74LVC244APW
SN74LVC245APW
SN74LVC257APW
SN74LVC373APW

CAPACITORS

C1510
C1513-C1516
C1502-C1509,C1511,C1512

CCSSCH680J50
CKSSYB102K50
CKSSYB104K10

RESISTORS

R1557
R1510,R1521,R1549
R1517-R1520,R1526-R1529,R1531
R1534,R1535,R1539-R1543,R1545
Other Resistors

RAB4CQ0R0J
RAB4CQ103J
RAB4CQ470J
RAB4CQ470J
RS1/16S###J

OTHERS

JA1501 PC CARD CONNECTOR

AKP1287

Mark No. Description**Part No.****[IEEE1394 BLOCK]
SEMICONDUCTORS**

IC1606
IC1604
IC1605
IC1601,IC1603
IC1602

CY2305SC-1H
PST3622NR
SN74LVC125APW
SN74LVC1G08DCK
TSB43CA42ZGW

Q1601

DTC124EUA

COILS AND FILTERS

L1605-L1608 CHOKE COIL
F1601,F1603 EMI FILTER
F1602,F1604 FERRITE BEAD

ATH1160
DTL1106
VTF1084

CAPACITORS

C1638-C1640
C1634,C1635
C1610,C1616
C1633,C1637
C1611,C1618,C1624

BCG1054
CCSSCH221J50
CCSSCH6R0D50
CKSRYB105K10
CKSSYB102K50

C1601,C1603,C1623,C1625-C1630
C1636
C1602,C1604-C1609,C1612,C1613
C1617,C1619-C1622,C1631,C1632

CKSSYB103K16
CKSSYB103K16
CKSSYB104K10
CKSSYB104K10

RESISTORS

R1606-R1612
R1634
R1635-R1639,R1649,R1652
R1676,R1677
R1653

RAB4CQ0R0J
RAB4CQ330J
RAB4CQ472J
RAB4CQ472J
RS1/16S6341D

R1674,R1675
R1659-R1663,R1671-R1673
Other Resistors

RS1/16SS5101F
RS1/16SS56R0D
RS1/16S###J

OTHERS

JA1601,JA1602
IEEE1394 CONNECTOR
X1601 CRYSTAL RESONATOR
(24.576MHz)

AKP1289

ASS1202

**[BACK END IC BLOCK]
SEMICONDUCTORS**

IC1701
Q2201

BCM7038KPB1G-B1
RN1901

COILS AND FILTERS

F1701-F1709 FERRITE BEAD
F1901 FERRITE BEAD
F2001-F2003 FERRITE BEAD
F2201-F2209 FERRITE BEAD

VTF1084
VTF1084
VTF1084
VTF1084

CAPACITORS

C1752
C1712
C2205
C1734,C1742,C1747,C1751,C1909
C2208

ACH1421
ACH1429
BCG1054
BCG1059
CCSSCH150J50

C1702,C1704,C1711,C1715,C1722
C1729,C1730,C1732,C1736,C1738
C1744,C1745,C1749,C1907,C2007
C2009,C2011,C2201,C2203,C2207
C2215,C2217,C2222,C2225,C2227

CKSSYB103K16
CKSSYB103K16
CKSSYB103K16
CKSSYB103K16
CKSSYB103K16

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
C2229	CKSSYB103K16	[FLASH, E2P BLOCK]		
C1701,C1703,C1705-C1710	CKSSYB104K10	<u>SEMICONDUCTORS</u>		
C1713,C1714,C1716-C1721	CKSSYB104K10	IC2805	BR24L64F-W	A
C1723-C1728,C1731,C1733,C1735	CKSSYB104K10	IC2702	PC28F256J3C125	
C1737,C1739-C1741,C1743,C1746	CKSSYB104K10	IC2804	PST3622NR	
		IC2701	SN74AHC2G02HDC	
C1748,C1750,C1902,C1903,C1908	CKSSYB104K10	Q2804	2SA1576A	
C2001,C2008,C2010,C2012,C2202	CKSSYB104K10			
C2204,C2206,C2216,C2218,C2223	CKSSYB104K10	Q2805	2SC4081	
C2226,C2228,C2230	CKSSYB104K10	Q2806	UMD2N	
		D2802	RB501V-40	
		D2801,D2803	UDZS4R7(B)	
<u>RESISTORS</u>				
R2249,R2250	RAB4CQ101J			
R1715	RAB4CQ330J	<u>COILS AND FILTERS</u>		
R2002,R2006	RAB4CQ470J	L2802	LCTAW2R2J2520	B
R1807-R1818	RAB4CQ472J			
R2204	RS1/16SS1002F	<u>CAPACITORS</u>		
		C2801	BCG1054	
R2208,R2209	RS1/16SS1101F	C2810-C2812,C2816,C2817	CCSRCH101J50	
R2201-R2203,R2205-R2207	RS1/16SS75R0F	C2820,C2821	CCSRCH101J50	
Other Resistors	RS1/16S###J	C2803,C2804	CCSSCH120J50	
		C2802,C2806	CCSSCJ3R0C50	
		C2822	CKSQYB105K16	
<u>[DDR SDRAM BLOCK]</u>		C2702-C2706,C2813,C2818,C2819	CKSSYB103K16	
<u>SEMICONDUCTORS</u>		C2701	CKSSYB104K10	
IC2303	BD3533F	C2808	CKSSYF104Z16	
IC2301,IC2302,IC2304,IC2305	MT46V16M16P-6TF			
		<u>RESISTORS</u>		C
<u>CAPACITORS</u>		R2702	RAB4CQ101J	
C2301,C2306,C2311,C2312,C2329	BCG1054	R2704	RAB4CQ472J	
C2352	BCG1054	R2803,R2808	RS1/16S3010F	
C2253,C2255	BCG1059	Other Resistors	RS1/16S###J	
C2313	CEHVKW101M6R3			
C2302-C2305,C2307-C2310	CKSSYB103K16	<u>OTHERS</u>		
		JA2803 MINI JACK (4P)	AKN1073	
C2315,C2316,C2319,C2320	CKSSYB103K16	CN2701 80P CONNECTOR	BKP1159	
C2323,C2324,C2327,C2328	CKSSYB103K16	X2801 CRYSTAL RESONATOR	BSS1134	
C2330-C2339,C2342,C2343	CKSSYB103K16			
C2346,C2347,C2350,C2351	CKSSYB103K16			
C2318,C2322,C2341,C2345	CKSSYB104K10			
		<u>[A/V OUT BLOCK]</u>		D
C2317,C2321,C2340,C2344	CKSSYB471K50	<u>SEMICONDUCTORS</u>		
		IC3001,IC3002,IC3004,IC3005	NJM2068V	
<u>RESISTORS</u>		Q2901	2SA1576A	
All Resistors	RS1/16S###J			
		<u>COILS AND FILTERS</u>		
<u>[BUS TERMINAL BLOCK]</u>		L3001,L3002 CHIP COIL	BTH1107	
<u>COILS AND FILTERS</u>		F2901 FERRITE BEAD	VTF1084	
F2601-F2603 FERRITE BEAD	VTF1084			
		<u>CAPACITORS</u>		
<u>CAPACITORS</u>		C2902	BCG1059	
C2509-C2511	BCG1054	C3003,C3013,C3023,C3036	CCSRCH331J50	
C2501-C2508	CKSSYB103K16	C3001,C3004,C3014,C3015	CCSSCH220J50	E
C2601-C2611	CKSSYB104K10	C3024,C3025,C3037,C3038	CCSSCH220J50	
		C3006,C3010,C3029,C3032	CCSSCH560J50	
		C3020,C3021,C3042,C3043	CKSSYB103K16	
<u>RESISTORS</u>				
R2501-R2508,R2552-R2559	RAB4CQ101J	C2924	CKSSYB104K10	
R2509-R2525,R2530-R2543	RAB4CQ220J	C3007,C3017,C3026,C3039	CKSSYB391K50	
R2545-R2548,R2560,R2561	RAB4CQ220J	C3009,C3012,C3031,C3035	CKSSYB821K50	
R2564,R2565,R2568-R2573	RAB4CQ220J	C2904	CKSSYF104Z16	
R2526-R2528,R2549,R2550	RAB4CQ510J	C3019,C3041	DCH1165	
R2562,R2563,R2566,R2567	RAB4CQ510J	<u>RESISTORS</u>		
Other Resistors	RS1/16S###J	R3005,R3006,R3023,R3024	RS1/16SS3302F	F
		R3039,R3040,R3062,R3063	RS1/16SS3302F	
		Other Resistors	RS1/16S###J	

	1		2		3		4
	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>		<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
A	<u>OTHERS</u>				C3310		CKSSYB102K50
	JA2901	OPTICAL OUTPUT JACK	TOTX179PL		C3307		CKSSYB103K16
					C3318,C3322,C3351		CKSSYB471K50
					C3306,C3309,C3325,C3326,C3364		CKSSYF104Z16
					C3401,C3408,C3410,C3412		CKSSYF104Z16
					<u>RESISTORS</u>		
					All Resistors		RS1/16S###J
					<u>OTHERS</u>		
					CN3301 12P CONNECTOR		AKM1298
					<u>[POWER BLOCK (2/2)]</u>		
B	<u>SEMICONDUCTORS</u>				<u>SEMICONDUCTORS</u>		
	IC3104		PE5436A		IC3312		BA00BC0WFP
	IC3101,IC3102		SN74AVC16827DGG		IC3314,IC3318		PST623XW
					IC3310,IC3313,IC3317,IC3321		R1224N102H
					Q3301,Q3305		2SA1576A
					Q3302,Q3303,Q3306,Q3311		CPH6311
					Q3307		DTC124EUA
					Q3304,Q3308,Q3310		RN1901
					D3311,D3312,D3315,D3318		D1FM3
					<u>COILS AND FILTERS</u>		
C	<u>RESISTORS</u>				L3302,L3305 INDUCTOR		ATH1161
	R3121		RAB4CQ0R0J		L3301,L3317 CHOKE COIL		ATH1192
	R3104,R3119,R3122,R3133,R3134		RAB4CQ330J		L3307,L3308 CHIP BEAD FILTER		BTX1042
	R3145		RAB4CQ330J		<u>CAPACITORS</u>		
	R3108,R3109,R3113		RAB4CQ470J		C3338,C3346		ACH1429
	Other Resistors		RS1/16S###J		C3332,C3334,C3337,C3339,C3347		BCG1054
					C3357,C3359		BCG1054
					C3344		BCG1059
					C3335,C3358		CEHVKW101M6R3
					C3345		CEHVKW470M16
D	<u>OTHERS</u>				C3331,C3333,C3340-C3342,C3360		CKSRYF105Z10
	CN3102 50P CONNECTOR		AKM1236		C3336,C3343		CKSSYB102K50
					C3316,C3317,C3329,C3361		CKSSYB103K16
					C3441		CKSSYB152K50
					C3367		CKSSYB682K25
					C3330		CKSSYF104Z16
					<u>RESISTORS</u>		
					R3352,R3353		RS1/10S271J
					R3375,R3421		RS1/16SS1002F
					R3382,R3422		RS1/16SS1003F
E	<u>[POWER BLOCK (1/2)]</u>				R3348		RS1/16SS1103F
	<u>SEMICONDUCTORS</u>				R3381,R3425		RS1/16SS1202F
	IC3315		MM1563DF		R3344		RS1/16SS1503F
	IC3301,IC3306		MM1565AF		R3323,R3354		RS1/16SS2202F
	IC3309		NJM2370U09		R3355		RS1/16SS3302F
	IC3316		NJM2846DL3-18		R3328		RS1/16SS5102F
	IC3302,IC3305,IC3307		NJM2846DL3-33		R3380,R3384		RS1/16SS5602F
	IC3304		NJM2871BF05		R3349		RS1/16SS9102F
	Q3309		2SC4081		R3314-R3316		RS1/4S1R5J
	D3308		1SS355		R3337,R3338		RS1/4S3R3J
F	D3302-D3305,D3307,D3309,D3310		RB501V-40		Other Resistors		RS1/16S###J
	D3314,D3316		RB501V-40		<u>OTHERS</u>		
	D3317		UDZS30(B)		8008 INSULATION SHEET		AAK2862
	<u>COILS AND FILTERS</u>				8001 THERMAL SHEET B		AEB1417
	L3304 CHIP BEAD FILTER		BTX1042		8101 CASE TOP U		ANG2787
	F3301,F3302 FERRITE BEAD		VTF1084		8102 CASE BOTTOM		ANG2898
	<u>CAPACITORS</u>				8103 HEAT SINK B		ANH1645
	C3302,C3304,C3305,C3313,C3314		BCG1054				
	C3321,C3363,C3409,C3411		BCG1054				
	C3356		BCG1059				
C3323		BCG1060					
C3311		BCG1064					
	C3324		CEHVKW100M50				
	C3407		CEHVKW470M16				
	C3301,C3319,C3353		CKSQYB105K16				
	C3354		CKSQYB225K10				
	C3308,C3362		CKSRYB105K10				

5	6	
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
8006	GASKET	ANK1789
8007	GASKET	ANK1790
8301	SCREW	BBB30P080FTC
8302	SCREW	BBZ30P060FTC
8303	SCREW	PMB20P100FTC

MR MAIN ASSY
[BOARD IF BLOCK]
SEMICONDUCTORS

Q4001	DTA124EUA
D4001	1SS355

RESISTORS

R4008,R4010	BCN1070
R4011	RAB4CQ0R0J
R4021-R4023	RS1/10S0R0J
Other Resistors	RS1/16S###J

OTHERS

CN4004	50P CONNECTOR	AKM1201
CN4015	3P CONNECTOR	AKM1213
CN4001	50P CONNECTOR	AKM1236
CN4007,CN4009	3P CONNECTOR	AKM1274
CN4005	40P CONNECTOR	AKM1303

[MR REG BLOCK]
SEMICONDUCTORS

IC4212	BD6522F
IC4211	MM1661JH
IC4202	NCP1117ST15
IC4209	NCP1117ST18
IC4204,IC4205	PQ033ENA1ZPH
IC4206	PQ050DNA1ZPH
IC4203	PQ090DNA1ZPH
Q4201	DTC124EUA
D4202-D4206,D4209,D4211	1SS355

COILS AND FILTERS

L4201 INDUCTOR	BTH1111
⚠ L4203 CHIP BEAD FILTER	BTX1042
⚠ F4201-F4203,F4205,F4207 EMI FILTER	CCG1162 BTH1111

CAPACITORS

C4206,C4209,C4215 (10/6.3V)	ACG7046
C4220,C4240,C4250 (10/6.3V)	ACG7046
C4253,C4257 (10/6.3V)	ACG7046
C4260,C4263 (10/6.3V)	ACG7046
C4213 (100UF/16V)	ACH1394
C4210,C4244,C4269	ACH1429
C4273	CCSSCH101J50
C4216,C4219,C4221,C4222,C4224	CEHVKW101M6R3
C4228,C4238,C4264	CEHVKW101M6R3
C4226	CEHVKW220M16
C4214	CKSRYB104K16
C4217,C4223	CKSRYB105K10
C4229,C4252	CKSSYB104K10
C4232	CKSSYB471K50
C4204,C4212,C4227,C4251	CKSSYF104Z16
C4261,C4262	CKSSYF104Z16
C4211,C4225,C4256	DCH1165

Mark No.	Description	Part No.
<u>RESISTORS</u>		
R4225		RS1/10S0R0J
Other Resistors		RS1/16S####J
<u>OTHERS</u>		
U4201	DD CONTROL UNIT	AXY1117

[MR TUNER BLOCK] SEMICONDUCTORS

IC4402	CXA2064M
IC4401	TC74HC4066AFT
Q4406,Q4414	2SA1586
Q4401,Q4402,Q4405,Q4408,Q4409	2SC4116
Q4416-Q4418	2SC4116

Q4404	DTA124EUA
Q4403,Q4407,Q4413,Q4415	HN1B04FU
Q4410	HN1C01FU
D4401	1SS355
D4402	UDZS30(B)

COILS AND FILTERS

L4401-L4404	CHIP COIL	BTH1121
F4401-F4404	FERRITE CORE	VTF1080

CAPACITORS

C4419,C4425,C4427 (4.7U/10V)	ACG1122
C4430,C4440,C4441 (4.7U/10V)	ACG1122
C4412,C4443 (10/6.3V)	ACG7046
C4445 (100UF/16V)	ACH1394
C4421	ACH1417

C4420	ACH1418
C4450	CCSRCH331J50
C4414,C4447	CCSRCH821J50
C4401	CEHVKW100M50
C4405,C4406,C4434,C4435	CEHVKW101M6R3

C4436	CEHVKW220M16
C4422,C4428,C4451,C4452	CKSRYB105K10
C4442	CKSRYB123K50
C4407,C4431	CKSRYF104Z50
C4402,C4415,C4416	CKSSYB102K50

C4423	CKSSYB272K50
C4424	CKSSYB473K16
C4429	CKSSYB562K25
C4410,C4411,C4439	CKSSYF104Z16
C4418,C4426,C4444,C4446	DCH1165

RESISTORS

R4401	ACN1199
R4430,R4431	RS1/16SS1002F
R4437	RS1/16SS6802F
VR4401	CCP1394
VR4402-VR4404	CCP1396
Other Resistors	RS1/16S###J

OTHERS

⚠ U4401 TV FRONT END SYSTEM	AXF1130
⚠ U4402 FRONT END (US)	AXF1148

Mark No. Description**Part No.****Mark No. Description****Part No.****[AV IO BLOCK]
SEMICONDUCTORS**

A

IC4601
IC4603
IC4602
Q4605-Q4607,Q4612,Q4615
Q4609,Q4610,Q4613

MAX3232CPW
TC74VHC00FTS1
TC74VHC125FTS1
2SA1586
2SC4116

Q4602,Q4603
Q4601
Q4604,Q4611,Q4614,Q4616
Q4608
D4601

2SC5233
DTA124EUA
DTC124EUA
HN1A01FU
1SS301

D4602,D4618-D4621

1SS355

B

CAPACITORS

C4607 (10/6.3V)
C4601,C4608
C4632,C4634
C4610,C4612,C4617-C4620
C4625,C4626

ACG7046
ACH1419
CEHVKW100M16
CKSRYB105K10
CKSRYB105K10

C4611,C4615,C4616,C4622-C4624
C4614,C4621
C4606,C4627-C4631,C4633,C4635
C4602,C4605,C4609,C4613

CKSSYB103K16
CKSSYB473K16
CKSSYF104Z16
DCH1165

C

RESISTORS

R4619
R4611
R4624,R4625,R4627,R4633
R4635,R4636
Other Resistors

RS1/10S121J
RS1/10S151J
RS1/16S75R0F
RS1/16S75R0F
RS1/16S###J

D

OTHERS

JA4605 9P PIN JACK
JA4603 MINI JACK (4P)
CN4602 9P D-SUB SOCKET
JA4601 DUAL 4P MINI DIN (S)
JA4604 REMOTE CONTROL JACK

AKB1319
AKN1073
AKP1213
AKP1234
RKN1004

D

**[MR AV SW BLOCK]
SEMICONDUCTORS**

IC4803
IC4801
Q4801-Q4803,Q4805,Q4806
Q4811,Q4812
Q4807,Q4810,Q4813,Q4814

NJM12904V
R2S11002FT
2SA1586
2SA1586
2SC4116

Q4808,Q4815
Q4809,Q4816
D4801

DTA124EUA
DTC124EUA
1SS301

E

CAPACITORS

C4834
C4818,C4822 (10/6.3V)
C4825,C4828,C4832,C4833
C4847,C4850
C4852,C4855

ACG1122
ACG7046
CCG1205
CCSRCH181J50
CCSRCH681J50

C4819
C4802,C4804,C4806,C4807
C4810,C4811,C4813,C4817
C4820,C4821,C4823,C4824,C4827
C4837,C4838,C4848,C4849

CEHVKW101M6R3
CKSRYB105K10
CKSRYB105K10
CKSRYB105K10
CKSRYB105K10

F

RESISTORS

R4819,R4821
R4818,R4820
Other Resistors

RS1/16S1800F
RS1/16S5600F
RS1/16S###J

**[IF UCOM BLOCK]
SEMICONDUCTORS**

IC5002
IC5003
IC5001
IC5004
Q5001

HD64F3684FP
PST9230N
TC74VHC08FTS1
TC7W126FU
DTC124EUA

CAPACITORS

C5007,C5008
C5001
C5010
C5002-C5005,C5009,C5012

CCSSCH180J50
CEHVKW101M6R3
CKSSYB472K25
CKSSYF104Z16

RESISTORS

R5002,R5004,R5007,R5025,R5026
Other Resistors

RAB4CQ103J
RS1/16S###J

OTHERS

X5002 CERAMIC RESONATOR
X5001 CRYSTAL OSCILLATOR

ASS1168
ASS1172

**[MAIN UCOM BLOCK]
SEMICONDUCTORS**

IC5202
IC5206
IC5207
IC5210
IC5209

BR24L64F-W
MB91305PMC-G-BND
MBM29DL162TE70TN
MM1522XU
PQ200WNA1ZPH

IC5203
IC5201,IC5204
Q5202
Q5204
Q5201

PST3628UR
TC74VHC125FTS1
2SJ461A
DTC124EUA
SM6K2

D5203
D5201

1SS355
SML-311UT

CAPACITORS

C5235
C5217,C5218,C5240-C5249
C5238
C5201
C5261-C5263,C5276

CCSRCH221J50
CCSSCH470J50
CEHVKW100M35
CEHVKW101M6R3
CKSSYB102K50

C5216,C5233
C5215
C5253
C5202-C5214,C5219,C5222-C5232
C5234,C5252,C5399

CKSSYB103K16
CKSSYB472K25
CKSSYF103Z50
CKSSYF104Z16
CKSSYF104Z16

C5236

DCH1165

5	6	7	8
Mark No. Description Part No.	Mark No. Description Part No.	Mark No. Description Part No.	Mark No. Description Part No.
RESISTORS		RESISTORS	
R5262,R5268	ACN1248	R6010,R6068,R6072	ACN1246
R5205,R5213	RAB4CQ101J	R6065,R6073	BCN1067
R5283	RS1/16S1201F	R6007,R6030,R6071	RAB4CQ220J
R5282	RS1/16S4301F	R6063	RS1/16SS1001D
R5273	RS1/16S8201F	R6038,R6039,R6049	RS1/16SS2000F
Other Resistors	RS1/16S###J	R6054	RS1/16SS2201D
		R6052	RS1/16SS6200D
		Other Resistors	RS1/16S###J
OTHERS		OTHERS	
CN5202 50P CONNECTOR	AKM1201	X6002 CRYSTAL	ASS1191
K5201,K5202 TEST PIN	AKX9002		
X5201 CERAMIC RESONATOR	ASS1178		
[CCD UCOM BLOCK]		[MR ADC BLOCK]	
SEMICONDUCTORS		SEMICONDUCTORS	
IC5603	FMS6410CS	IC6201	AD9985KSTZ-110
IC5602	PEG150A		
Q5601,Q5605	2SA1586		
		COILS AND FILTERS	
CAPACITORS		⚠ F6201,F6204 EMI FILTER	CCG1162
C5612,C5614	CCG1205		
C5603,C5609	CCSRCH331J50	CAPACITORS	
C5618,C5619	CCSRCH5R0C50	C6205,C6209	CKSSYB104K10
C5611,C5613	CCSSCH221J50	C6207,C6210,C6218	CKSSYB473K16
C5620	CCSSCK2R0C50	C6202	CKSSYB822K16
		C6201	CKSSYB823K10
C5605,C5617	CEHVKW100M16	C6203,C6204,C6206,C6208	CKSSYF104Z16
C5622,C5623	CKSRYB105K10		
C5606,C5607	CKSSYB102K50	C6211,C6212,C6215-C6217	CKSSYF104Z16
C5602,C5604	CKSSYB104K10	C6222-C6224	CKSSYF104Z16
C5621	CKSSYB153K16		
		RESISTORS	
C5608,C5610,C5615,C5616,C5624	CKSSYF104Z16	R6213,R6218,R6223	BCN1067
		R6202	RS1/16SS2701F
		Other Resistors	RS1/16S###J
RESISTORS			
R5631	RAB4CQ101J		
R5633	RAB4CQ102J	[MR HDMI BLOCK]	
R5601-R5603,R5606-R5609	RAB4CQ473J	SEMICONDUCTORS	
R5614-R5617,R5621-R5623	RAB4CQ473J	IC6402,IC6403	BR24L02FJ-W
R5657,R5658	RAB4CQ473J	IC6405	PCM1754DBQ
Other Resistors	RS1/16S###J	IC6404	SII9021CTU
		Q6416,Q6417	2SA1586
		Q6412,Q6414	DTA124EUA
OTHERS			
X5601 CERAMIC RESONATOR	ASS1159	Q6413,Q6415	DTC124EUA
		Q6402,Q6405	HN1K02FU
		Q6403,Q6404	RN1902
[MR VDEC BLOCK]		D6404,D6408	1SS301
SEMICONDUCTORS		D6403,D6407	UDZS6R8(B)
IC6002	K4S161622H-TC60		
IC6003	UPD64015GM-UEU	COILS AND FILTERS	
		⚠ F6401 EMI FILTER	CCG1162
COILS AND FILTERS			
⚠ F6001,F6002,F6010,F6011	CCG1162	CAPACITORS	
EMI FILTER		C6491 (10/6.3V)	ACG7046
CAPACITORS		C6401,C6403,C6405,C6409,C6411	CCSSCH101J50
C6056,C6088	ACG7046	C6419,C6426,C6428,C6430,C6432	CCSSCH101J50
C6078,C6083	CCSSCH8R0D50	C6434,C6435,C6438,C6440,C6442	CCSSCH101J50
C6062,C6065,C6069,C6071,C6079	CKSSYB103K16	C6444,C6446,C6448,C6449,C6454	CCSSCH101J50
C6046,C6058,C6063,C6064	CKSSYB104K10		
C6066,C6067,C6070,C6072-C6077	CKSSYB104K10	C6456,C6459,C6464,C6466,C6468	CCSSCH101J50
		C6470,C6472,C6474,C6476,C6478	CCSSCH101J50
C6080-C6082,C6084,C6085	CKSSYB104K10	C6480,C6482	CCSSCH101J50
C6001-C6008,C6012-C6028	CKSSYF104Z16	C6462,C6463	CCSSCH120J50
C6031-C6045,C6047,C6048,C6068	CKSSYF104Z16	C6425,C6484	CEHVKW220M6R3

Mark No. Description

C6402,C6404,C6406,C6408,C6410
C6412,C6414,C6416,C6418
C6420-C6424,C6427,C6429,C6431
C6433,C6436,C6437,C6439,C6441
C6443,C6445,C6447,C6450-C6453

A

C6455,C6457,C6458,C6460,C6461
C6465,C6467,C6469,C6471,C6473
C6475,C6477,C6479,C6481,C6483
C6490

RESISTORS

R6418,R6419,R6421
R6414
R6465
R6438
R6416

B

Other Resistors

OTHERS

JA6401,JA6402
HDMI CONNECTOR
X6401 CRYSTAL

**[MR DSEL BLOCK]
SEMICONDUCTORS**

IC6601
IC6602

C

COILS AND FILTERS

⚠ F6604 CHIP BEAD FILTER
⚠ F6601-F6603 EMI FILTER

CAPACITORS

C6632 (10/6.3V)
C6604
C6631
C6601-C6603,C6607-C6610
C6613-C6617,C6619,C6621-C6623

D

C6625-C6627,C6629,C6630

RESISTORS

R6603-R6605
R6611,R6614,R6618
R6613,R6620
Other Resistors

E

OTHERS

X6601 CRYSTAL

F

**[MR IP BLOCK]
SEMICONDUCTORS**

IC6801,IC6802
IC6803

COILS AND FILTERS

⚠ L6801-L6804 CHIP BEAD FILTER

CAPACITORS

C6801 (10/6.3V)
C6863
C6802,C6804,C6807-C6809,C6813
C6815-C6817,C6821,C6824-C6828
C6830,C6831,C6834,C6835

F

Part No.

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

ACN1251
RAB4CQ100J
RAB4CQ103J
RAB4CQ470J
RAB4CQ680J

RS1/16S###J

AKP1278

ASS1192

PD6523A
TC74LCX125FT

ATX1058
CCG1162

ACG7046
CCSRCH221J50
CKSSYB102K50
CKSSYF104Z16
CKSSYF104Z16

CKSSYF104Z16

ACN1251
BCN1071
RAB4CQ101J
RS1/16S###J

ASS1194

K4S643232H-TC60
PE5504B

BTX1042

ACG7046
CKSSYB102K50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

Mark No. Description

C6839-C6862

RESISTORS

R6833,R6838
R6841,R6844-R6847
R6813,R6814,R6816,R6820,R6821
R6823,R6825,R6827,R6828
R6818

R6832
R6817
Other Resistors

**[MR MULTI BLOCK]
SEMICONDUCTORS**

IC7002
IC7001
IC7004

COILS AND FILTERS

⚠ F7001-F7006 EMI FILTER

CAPACITORS

C7052
C7006,C7008,C7010-C7017,C7019
C7021,C7023,C7024,C7026-C7029
C7032-C7034,C7036,C7037
C7039-C7042,C7044,C7046-C7048

C7050

RESISTORS

R7011,R7013,R7024,R7032,R7036
R7062-R7064
R7015,R7023
R7016,R7018,R7070
R7060

Other Resistors

**[MR IF BLOCK]
SEMICONDUCTORS**

IC7202
IC7201,IC7203
Q7206
Q7203,Q7207,Q7210
Q7211

Q7209
Q7201
D7202-D7206

COILS AND FILTERS

⚠ F7204-F7207 EMI FILTER
⚠ L7201 CHIP FERRITE BEAD
⚠ F7201-F7203,F7208 EMI FILTER

CAPACITORS

C7203,C7207,C7208 (10/6.3V)
C7226,C7227
C7201,C7204,C7211,C7213,C7214
C7216,C7217,C7219,C7221
C7223

C7209,C7215,C7220,C7225,C7228
C7202,C7205,C7206,C7210,C7212
C7218,C7224

Part No.

CKSSYF104Z16

ACN1246
ACN1251
BCN1067
BCN1067
BCN1071

RAB4CQ101J
RAB4CQ470J
RS1/16S###J

MBM29DL162TE70TN
PEG121B
TC74VHC08FTS1

CCG1162

CKSSYB102K50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

CKSSYF104Z16

ACN1246
ACN1251
RAB4CQ101J
RAB4CQ103J
RAB4CQ680J

RS1/16S###J

SII170BCLG64
TC74VHC08FTS1
2SA1586
DTA124EUA
DTC124EUA

HN1C01FU
RN1902
1SS355

ATF1209
BTX1042
CCG1162

ACG7046
CCSSCH100D50
CCSSCH101J50
CCSSCH101J50
CKSSYB102K50

CKSSYB471K50
CKSSYF104Z16
CKSSYF104Z16

5			7		8
Mark No.	Description	Part No.	Mark No.	Description	Part No.
RESISTORS			RESISTORS		
R7215		RAB4CQ101J	All Resistors		RS1/16S###J
R7216		RS1/16S5100F			
Other Resistors		RS1/16S###J	OTHERS		
			CN8001 CONNECTOR		CKS3826
OTHERS			FRONT ASSY		
CN7201 SOCKET (20P)		AKP1226	SEMICONDUCTORS		
CN7202 DVI SOCKET (24P)		AKP1250	IC7801		BR24C21FJ
			IC7802		TC74VHC08FTS1
[MR RGB SW BLOCK]			Q7801-Q7803,Q7806-Q7808		2SC4116
SEMICONDUCTORS			Q7804,Q7805		DTC124EUA
IC4701		NJM12904V	D7813		1SS301
IC4702		R2S11001FT			
IC4703		TC7WH123FU			
Q4706-Q4709		2SA1586	D7805-D7807,D7816-D7818		1SS302
Q4703		2SC4116	D7801-D7803		UDZS5R1(B)
			D7811,D7812,D7814,D7815		UDZS5R6(B)
Q4704		2SC5233	D7804,D7808		UDZS9R1(B)
Q4701		DTA124EUA			
Q4702		DTC124EUA			
Q4705		HN1A01FU			
D4701,D4708		1SS301	CAPACITORS		
			C7821,C7827 (10/6.3V)		ACG7046
CAPACITORS			C7829,C7830 (10/6.3V)		ACG7046
C4737,C4741,C4755 (10/6.3V)		ACG7046	C7822,C7823		CCSRCH220J50
C4702		CCSRCH331J50	C7841,C7844,C7846		CEHVKW100M16
C4725,C4727		CCSRCH680J50	C7803,C7804		CKSRYB103K50
C4728		CEHVKW101M6R3			
C4705		CEHVKW220M16	C7805,C7808,C7809,C7813		CKSRYB105K10
C4711-C4716,C4723,C4729-C4731		CKSRYB105K10	C7831,C7832,C7834,C7839,C7842		CKSRYB105K10
C4734,C4738,C4739,C4743,C4754		CKSRYB105K10	C7845		CKSRYB105K10
C4706		CKSRYB224K10	C7801		CKSRYB473K16
C4703		CKSRYB473K16	C7802,C7820,C7824,C7840,C7843		CKSSYF104Z16
C4717-C4721,C4724,C4726,C4732		CKSSYB103K16			
			C7847,C7848		CKSSYF104Z16
C4735,C4736,C4742,C4750-C4753		CKSSYB103K16	C7819,C7835,C7849		DCH1165
C4707-C4710,C4740,C4744,C4745		CKSSYF104Z16	RESISTORS		
C4749		CKSSYF104Z16	R7801,R7803,R7809,R7823-R7825		RS1/16S75R0F
C4701,C4704		DCH1165	R7857-R7859		RS1/16S75R0F
			Other Resistors		RS1/16S###J
RESISTORS			OTHERS		
R4756		RS1/16S1800F	JA7803 PIN JACK (3P)		AKB1303
R4746		RS1/16S5600F	JA7805 PIN JACK (3P)		AKB1305
R4728-R4730,R4748-R4750		RS1/16S75R0F	CN7803 12P FFC CONNECTOR		AKM1233
Other Resistors		RS1/16S###J	CN7804 50P CONNECTOR		AKM1236
			CN7806 15P D-SUB SOCKET		AKP1214
OTHERS					
JA4701 PIN JACK (9P)		AKB1329	JA7801 4P MINI DIN SOCKET (S)		AKP1238
LED ASSY			POWER SUPPLY UNIT		
SEMICONDUCTORS			POWER SUPPLY Unit has no service part.		
Q8003		DTA124EUA			
Q8004		DTC124EUA			
Q8002		RN2902			
D8001		SML-311DT			
D8003		SML-311UT			
D8004		SML310BA1T			
SWITCHES AND RELAYS					
S8001-S8007		ASG1088			
CAPACITORS					
C8005,C8006		CCSRCH101J50			
C8001,C8007		CKSSYF104Z16			

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced.
Replacement of individual components on the circuitboard can cause malfunction and/or failure. If replacement is necessary, the assembly must be replaced.
2. Use a stable AC power supply.

6.1 POSSIBLE CASES WHERE READJUSTMENT IS REQUIRED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	No adjustment required
MR MAIN Assy	➡	No adjustment required
MR DTB Assy	➡	No adjustment required However, HOST ID is changed. Please tell a customer about new HOST ID. Refer to the following note and instruction manual.
PC Card Unit	➡	No adjustment required
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
MR MAIN Assy	➡	Replacement of components IC4801, IC5202, IC5207, IC6003 and IC6201 on the circuitboard can cause malfunction and/or failure. If replacement is necessary, the assembly must be replaced.
MR DTB Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
PC Card Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
Other assemblies	➡	No adjustment required

■ Adjustment items

- ① Audio Level Adjustment
- ② Audio Level Adjustment
- ③ MSP Adjustment
- ④ MSP Adjustment

Note: Checking the Cable Card ID

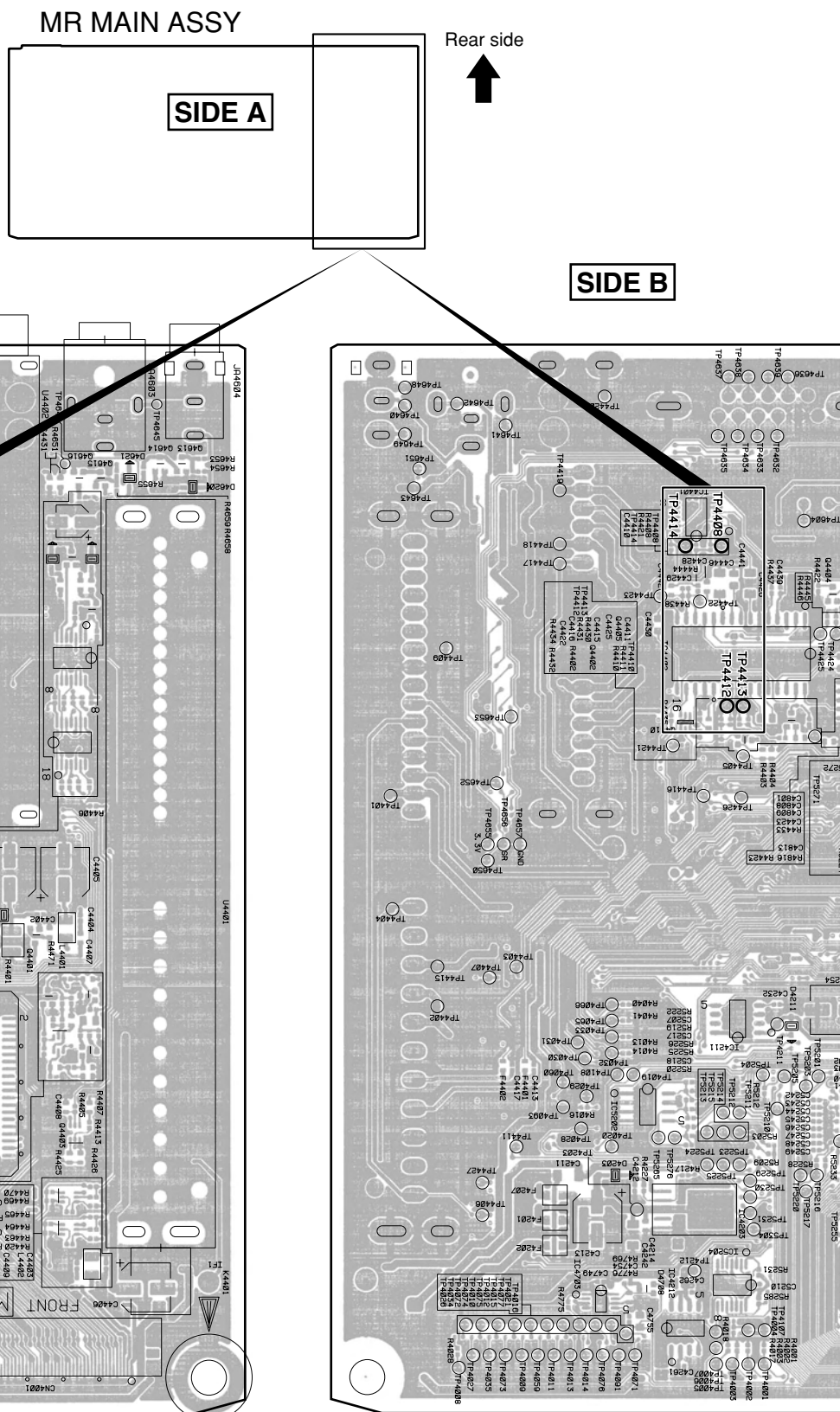
- The Media Receiver has a slot for a cable card that is used for managing your information by the cable TV company. The following procedure allows you to check your Cable Card ID and the Host ID.
1. Press HOME MENU.
2. Select "Tuner Setup". (▲/▼ then ENTER)
3. Select "Channel Setup". (◀/▶ then ENTER)
4. Select "POD ID". (▲/▼)
 - The Host ID and Cable Card ID appear.
5. Press HOME MENU to exit the menu.

6.3 ADJUSTMENT ITEMS



If readjustment is necessary because of adjustment error at shipment, perform adjustments as shown below.

● Adjustment Points



1 Audio Level Adjustment

Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 75dB μ V
1kHz MONO 100%

START

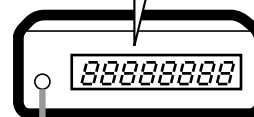


Select
ANT A 55.25 MHz
AIR
02

1 ~ 9



VR4404
(MR MAIN Assy)



Adjust TP4408 to 110mVrms

Digital multimeter
/ Tester



TP4408
(MR MAIN Assy)

2 Audio Level Adjustment

Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 75dB μ V
1kHz MONO 100%

START

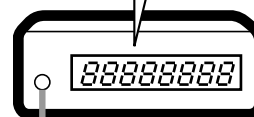


Select
ANT B 55.25 MHz
AIR
02

1 ~ 9



VR4402
(MR MAIN Assy)



Adjust TP4414 to 110mVrms

Digital multimeter
/ Tester



TP4414
(MR MAIN Assy)

3 MSP Adjustment

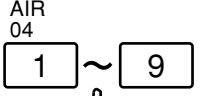
Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 75dB μ V
300Hz STEREO 100% Lch Only

START



Select
ANT B 67.25 MHz
AIR
04

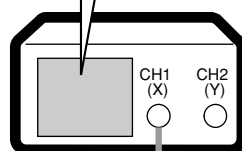


VR4403
(MR MAIN Assy)



Adjust
Turn the wave pattern into a minimum.

minimum



Oscilloscope

TP4412
(MR MAIN Assy)

4 MSP Adjustment

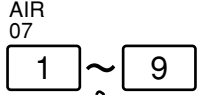
Equipment : SG

Condition : Input RF level 75dB μ V
5kHz STEREO 100% Lch Only

START



Select
ANT B 175.25 MHz
AIR
07

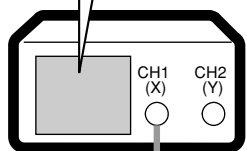


VR4401
(MR MAIN Assy)



Adjust
Turn the wave pattern into a minimum.

minimum



Oscilloscope

TP4412
(MR MAIN Assy)

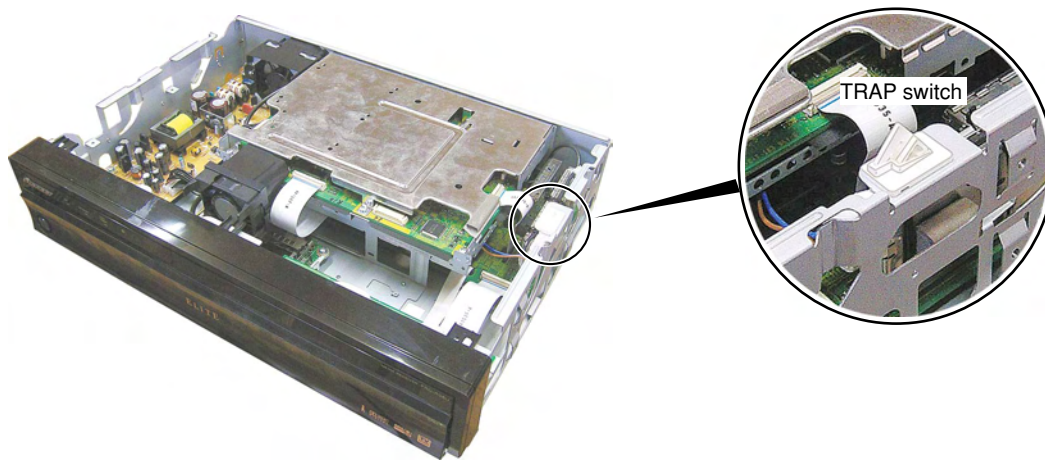
6.4 TRAP SWITCH

● Outline and Notes

For video data transmission from the Media Receiver to the PDP-436U and PDP-506U-series Plasma Displays, digital signals are used. Therefore, this unit adopts the HDCP (High-bandwidth Digital Content Protection) system for copyright protection. This unit is also provided with a detection switch (TRAP switch) that will prohibit the unit from being turned on again "if the upper plate of the unit is accidentally opened," in order to prevent the panel technology from being leaked out.

The TRAP switch is disabled while the unit is turned off.

When performing internal diagnosis of the PDP, fix the switch to the OFF position using adhesive tape before turning on the unit. After servicing, be sure to remove the adhesive tape.



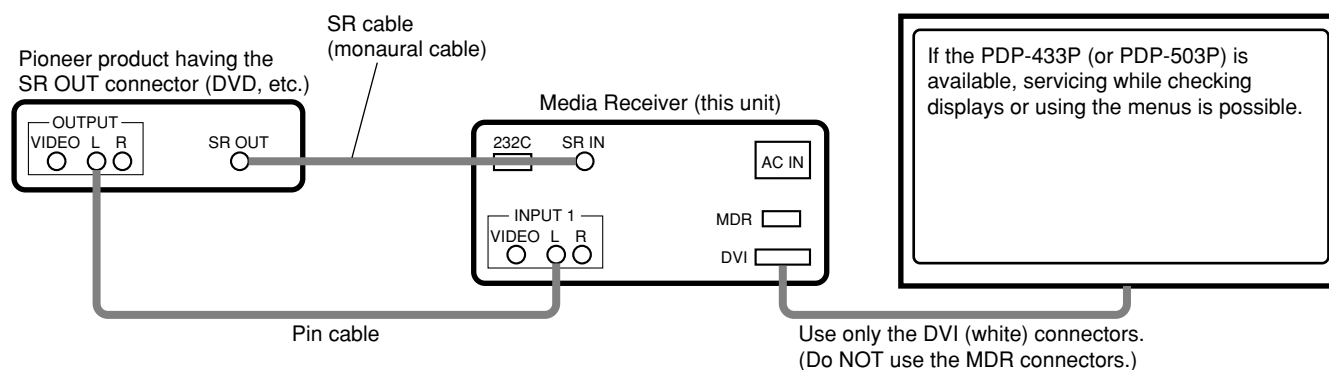
6.5 SERVICING USING ONLY THE MEDIA RECEIVER

For servicing of the PDP-436HD and PDP-506HD-series Plasma Display using only the Media Receiver, the following two methods can be used:

● Remote controlling using SR connections

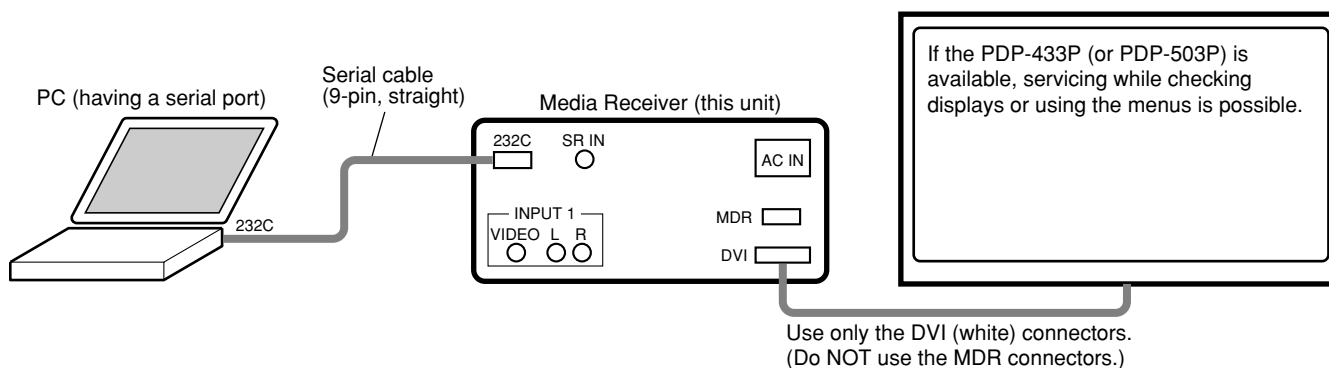
About connections

- Connect the SR OUT connector of a Pioneer product having that connector (a DVD in the following example) and the SR IN connector of the Media Receiver, using the SR cable. As the remote control sensor is not provided with the Media Receiver, this connection is required for using the remote control unit if the panel is not available. In this case, aim the remote control unit at the remote control sensor of the device (DVD in this case).
- Connect either the audio or the video output of the device (DVD in the example) and the corresponding audio or video input of the Media Receiver, using a cable with phono plugs. This connection is required in order to use ground in common with the SR cable, because with the SR cable connection the ground connection for signal reference is not available. In the example, the audio L channel is used, but the audio R channel or video can be used instead.
- If the plasma display for a previous model, such as the PDP-435P or PDP-505P, is available, servicing while checking displays or using the menus is possible. For this, connect only the DVI connectors (white) of the Media Receiver and the plasma display. The MDR connector of the Media Receiver must not be used, even though it has the same shape and number of pins, because signals assigned to the connectors



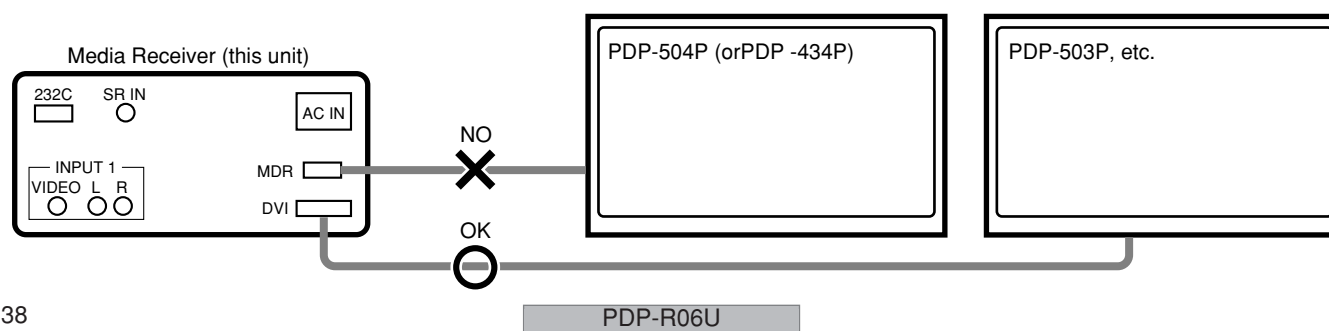
● RS-232C control using a PC

In this case the setting is RS-232C 38400bps, and the setting of "6.2. USING RS-232C COMMANDS" is not related. Please set baud rate of PC in 38400bps. For connection with the PC, use a straight cable.



● Note on connection

If the MDR connector of the PDP-436HD or PDP-506HD-series is used, it is considered that the PDP-436P (or PDP-506P) is connected, and the Media Receiver operates on such precondition, **which may result in a failure of the Media Receiver. Be sure not to connect to the MDR connector.** (Do NOT use the MDR connector when servicing the Media Receiver alone.)



6.6 SERVICE FACTORY MODE

To operate in Service Factory mode, use the supplied remote control unit.

How to enter Service Factory Mode

While in Standby mode, follow the below procedures with the remote control to enter Service Factory mode.

1. Press the [DISPLAY] key.
2. 3 second counter will start.
3. After 3 seconds, press [LEFT] key.
(If no operation is done within 10 seconds, the Service Factory routine is cleared, and the standby mode is returned)
4. 5 Second counter will start.
5. Before 5 second counter ends, press [UP] key.
6. Before 5 second counter ends, press [LEFT] key.
7. Before 5 second counter ends, press [RIGHT] key.
8. Before 5 second counter ends, press [POWER] key.
9. If the procedure is correct with the given time, the Service Factory mode is up and ready.

* During step 3 to 8, if other operations took place, the Service Factory routine is cleared.

* If the counter's time is up, normal standby mode is returned.

* If TV Guide On Screen's "Auto Guide" is "on", set this setting to "off" before starting the procedure.

If this setting is left "on", Service Factory mode will not be on.

Operation in Service Factory mode

Functions whose settings are set to OFF

The settings for the following functions are set to OFF when Service Factory mode is entered (including when the "FAY" command is received):

- Two-screen operations (input function set on the main side is selected)
- P ZOOM
- STILL
- Detection of the TRAP switch (The log in the EEPROM is retained.)

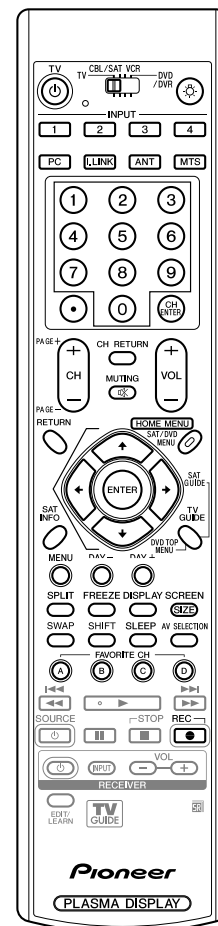
User data

User data will be treated as follows:

- User data on picture- and audio-quality adjustments are not reflected, and factory-preset data are output (user data will be retained in memory). When the unit enters Factory mode, the current audio-quality adjustment data will still be retained in memory.
- As to data on various settings, user data will be applied to the items that are associated with signal format change (screen-size switching, etc.).
- Data on screen (i.e., screen position; meaning clock dividers, and not including data on screen size) are reset to the default values (data stored in memory will be retained). Screen size will be retained.

Remote control codes in Service Factory mode

SR Function	Main Function	Remarks
Muting	Switching the main items	Shifting to the next main item (top)
DOWN	Switching the subtitled items	Shifting downward to the next subtitled item
UP	Switching the subtitled items	Shifting upward to the next upper layer
RIGHT	Decreasing the adjustment value	Decreasing the adjustment value
LEFT	Increasing the adjustment value	Increasing the adjustment value
SET	Switching layers	Shifting downward or upward to the next lower or upper layer
INPUT	Selecting input	Shifting the input to the next function
INPUTxx	Selecting input	Switching the input to xx
CH+	Increasing the channel number	Advancing a preset channel (effective when Function is set to TV)
CH-	Decreasing the channel number	Turning a preset channel backward (effective when Function is set to TV)
Numeric keys	Function: TV	Function: TV (previously selected channel number is selected)
POWER	Power OFF	Turning the power off
FACTORY	Factory OFF	Turning Service Factory mode off
MENU	Menu ON	Turning Service Factory mode off and Menu mode on



A

Changes of the Service Factory menus

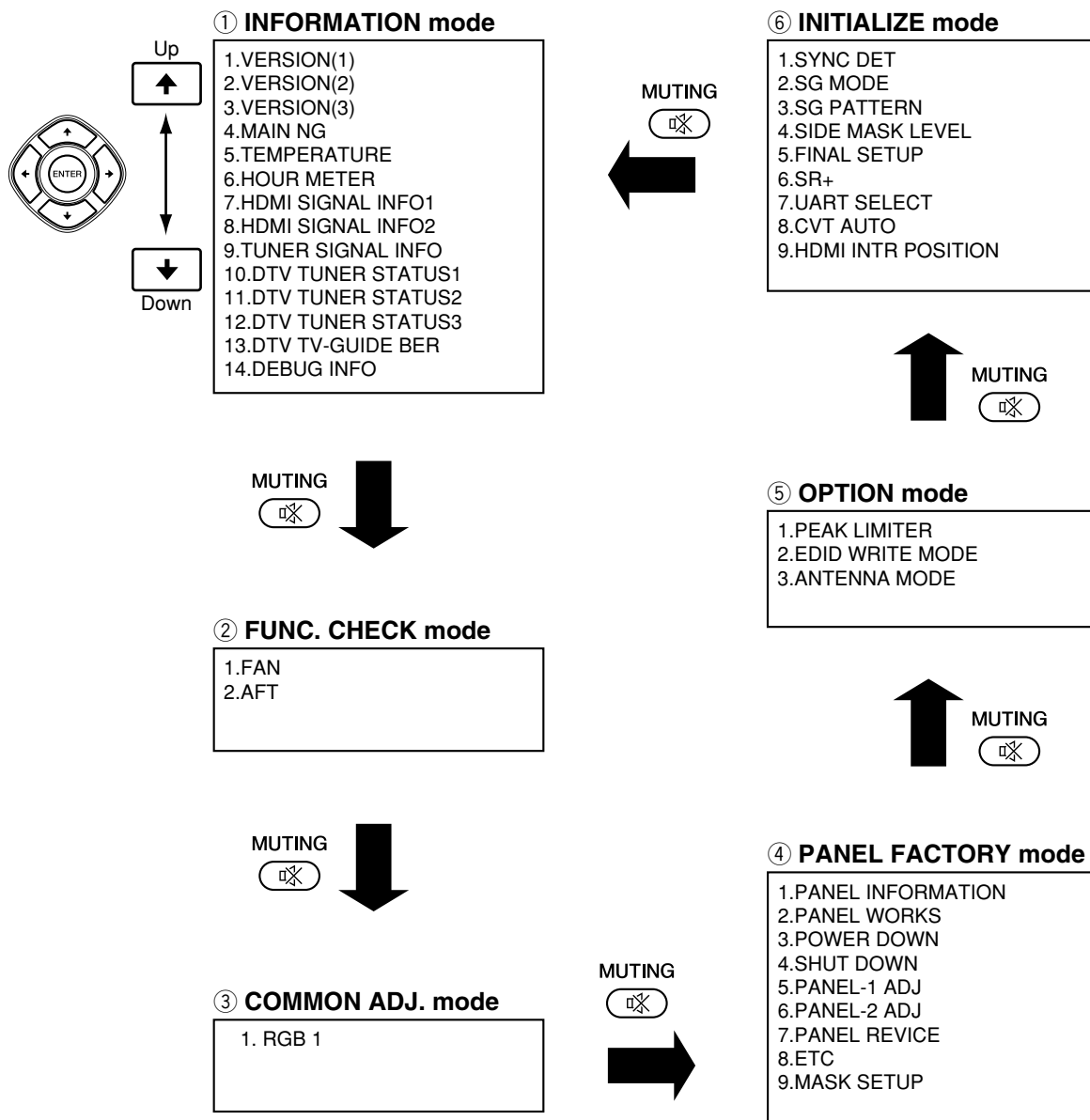
B

C

D

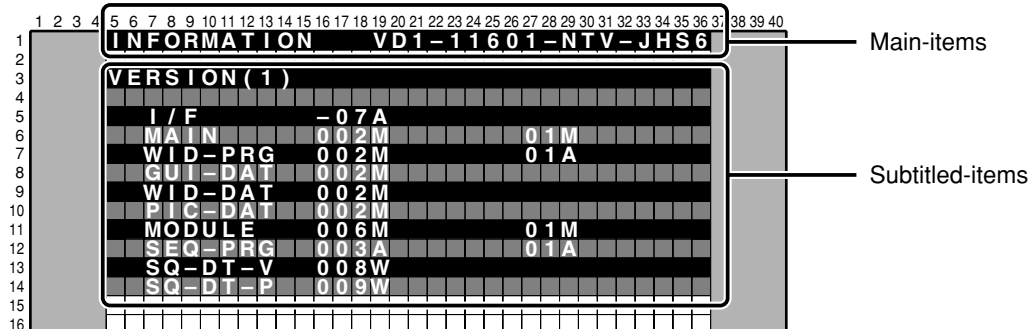
E

F



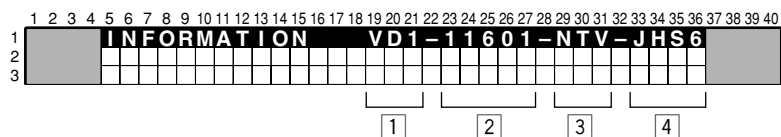
Note: Details of the Panel Factory Mode, refer to the Panel's service manual.

■ Indications in Service Factory mode



■ Main-item indications

Four parameters are displayed:



1 Input function

Input Functions	On-Screen Display
VIDEO 1- 4	VD 1 - 4
Terrestrial Wave A	ARA
Terrestrial Wave B	ARB
Cable A	CBA
Cable B	CBB
PC	PC
PC Card	PCC

4 Option (Destination, Panel Generation, etc.)

Options	On-Screen Display
HD system in North America (Regular)	ATS6
HD system in North America (ELITE)	AHS6

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display
NTSC	Composite input	NTV
	S-connector input	NTS
Y / CB / CR		CBR
Y / PB / PR		PBR
RGB		RGB
Digital video signal		DIG

A

● SIG-Mode and Screen Size (by User is displayed)

1st and 2nd charecters : SIG-Mode (resolution)

3rd and 4th charecters : SIG-Mode (refresh rate)

5th charecter : Setting of the screen size that user configured.

B

SIG-Mode table for video signals (resolutions and V frequencies)

1st - 4th Character		Signal Type	Vertical Frequency Fv (Hz)	Horizontal Frequency Fh (kHz)
10	60	SDTV*525i	60.000	15.750
20	60	SDTV*525p	60.000	31.500
30	60	HDTV*1125i	60.000	33.750
40	60	HDTV*750p	60.000	45.000

C

SIG-Mode table for PC signals (resolutions and V frequencies)

1st - 4th Character		Signal Type	Vertical Frequency Fv (Hz)	Horizontal Frequency Fh (kHz)
C1	70	720x400	70.087	31.469
C2	60	640x480	59.940	31.469
	72		72.809	37.861
	75		75.000	37.500
C4	56	800x600	56.250	35.1556
	60		60.317	37.879
	72		72.188	48.077
	75		75.000	46.875
C7	60	1024x768	60.004	48.363
	70		70.069	56.476
	75		75.029	60.023
C8	56	1280x768	56.250	45.113
	60		59.833	47.986
	70		70.000	56.137

D

Selection of the screen size by the user is displayed.

5th Character	GUI Notation	VIDEO	PC	Remarks
0	DOT BY DOT	—	●	
1	4:3	●	●	
2	FULL(FULL1)	●	●	
3	ZOOM	●	—	
4	CINEMA	●	—	
5	WIDE	●	—	
8	FULL2	●	●	

E

●: supported, —: unsupported

F

■ Service Factory Menus

① INFORMATION mode

● Operation items

No.	Function / Display	Context	RS-232C
1	VERSION (1)	The flash memory versions for each device are displayed. (common part)	QS1
2	VERSION (2)	The flash memory versions for each device are displayed. (individual part)	QS6
3	VERSION (3)	The flash memory versions for each device are displayed. (individual part)	QS6
4	MAIN NG	The shutdown generated on Media Receiver side and its time of occurrence are displayed.	QNG
5	TEMPERATURE	The information of temperature and fan status on Media Receiver side is displayed.	QMT
6	HOUR METER	The Cumulative power-on time to the Media Receiver is displayed.	—
7	HDMI SIGNAL INFO 1	The file information of HDMI series are displayed.	—
8	HDMI SIGNAL INFO 2	The file information of HDMI series are displayed.	—
9	TUNER SIGNAL INFO	The signal information on TUNER is displayed.	—
10	DTV TUNING STATUS 1	Digital broadcast information and status is displayed upon receiving digital broadcast signal.	—
11	DTV TUNING STATUS 2	Digital broadcast information and status is displayed upon receiving digital broadcast signal.	—
12	DTV TUNING STATUS 3	Digital broadcast information and status is displayed upon receiving digital broadcast signal.	—
13	DTV TV-GUIDE BER	TV-Guide Bit Error Rate Information.	—
14	DEBUG INFO	Debug Information.	—

1. VERSION (1)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
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Flash memory on Device	On-Screen Display
IF microcomputer	I/F
Main microcomputer	MAIN
Program for CARRERA-MANTA	WID-PRG
GUI data for CARRERA-MANTA	GUI-DAT
Enhanced data for CARRERA-MANTA.	WID-DAT
Picture Quality data for CARRERA-MANTA	PIC-DAT
Module microcomputer (for the PDP)	MODULE
Program for ASTRA-MANTA (for the PDP)	SEQ-PRG
Sequence data for ASTRA-MANTA Video	SQ-DT-V
Sequence data for ASTRA-MANTA PC	SQ-DT-P

A

2. VERSION (2)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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B

Flash Device	On - Screen Display	Version Display	Elite	Regular
DTV Hardware Version	HARDWARE	8 character	O	O
DTV Hardware Serial	SERIAL	8 character	O	O
DTV Runtime Version	RUNTIME	8 character	O	O
CFE Version	CFE	8 character	O	O
KERNEL Version	KERNEL	8 character	O	O
ROOTFS Version	ROOTFS	8 character	O	O
FLAGS	FLAGS	5 character	O	O

C

3. VERSION (3)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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D

Flash Device	On - Screen Display	Version Display	Elite	Regular
CCD-UCOM Version	CCD	4 character	O	O
CARD Version	CARD	8 character	O	×
User Password	PASSWORD	4 character	O	O

E

F

4. MAIN NG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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● Media Receiver NG information

OSD: MAIN	OSD: SUB	Cause of Shutdown
MODULE	----	Failure of communication to Module microcomputer
MA-SRL		3-wire Serial Communication of Main microcomputer.
	IF	Communication failure of IF microcomputer
	MULTI1	MANTA communication failure (MULTI1)
	I/P	MANTA communication failure (I/P)
	D-SEL	MANTA communication failure (D-SEL)
MA-IIC		IIC communication failure of Main microcomputer
	FE1	Analog Tuner 1 (Front End 1)
	FE2	Analog Tuner 2 (Front End 2)
	MPX	MPX
	AV-SW	AV Switch
	RGB-SW	RGB Switch
	CCD	CCD
	GCR	GCR
	M-VDEC	Main VDEC
	ADC	AD/PLL
	HDMI	HDMI
	PLK-T	TMDS Tx
	PLK-R	TMDS Rx
	MA-EEP	64k EEPROM
MAIN		Communication failure of Main microcomputer and Unknown Error
FAN		Fan stopped
TEMP2		Abnormally high temperature at MR.
DTUNER		Failure of Digital Tuner
	PS/RST	Failure to DTB Starting
	DEVICE	DTB Device Error
	TV-G	TV-Guide Error
M-DCDC		Abnormally in RST2 of MR (power decrease of DC-DC converter)
HOME-G		Failure at Home Gallery
	CD-COM	Failure of PC Card Communication
	CD-DEV	Failure of PC Card
	CD-RST	PC Card Reset NG

A

5. TEMPERATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
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Displays the temperature and FAN speed of the Media Receiver.

TEMP2 : Displays the value from 000 to 255 of the readout data from the Media Receiver's built-in heat sensor.

FAN : The value of the Fan output is displayed.

Either STOP, MIN, MAX is displayed.

STOP: FAN stop, MIN: FAN Speed Low, MAX: FAN Speed High

C

6. HOUR METER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40		
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- Displays the total time of power that the Media Receiver has been turned ON.

- Main microcomputer's memory timing is every one hour while the power is turned ON, when power is turned OFF, when PD/SD occurs.

E

F

B

D



- E

F

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PDP-R06U

10. DTV TUNING STATUS 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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11. DTV TUNING STATUS 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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12. DTV TUNING STATUS 3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Displays digital broadcast signal information and status upon receiving digital signal.

13. DTV TV-GUIDE BER

Exclusively used for production line. TV-Guide error bit ratio information is displayed.

14. DEBUG INFO

Exclusively used for technical analysis. Debug information for development use is displayed.

A

② FUNC. CHECK (Function Check) mode

● Operation items

No.	Display	Content	RS-232C
1	FAN <=>	Forces the setting of FAN speed.	—
2	AFT <=>	Controls AFT action by turning ON/OFF.	—

B

③ COMMON ADJ. mode

1. RGB1

Exclusively used for technical analysis (details omitted).

C

D

E

F

④ PANEL FACTORY mode

Please refer to panel's service manual.

⑤ OPTION mode

● Operation items

No.	Function/Display	Content	RS-232C
1	PEAK LIMITER ⇔	Control Peak Limiter (Select ON/OFF)	—
2	EDID WRITE MODE ⇔	DISABLE ⇔ ENABLE	—
3	ANTENNA MODE ⇔	CABLE ⇔ AIR	—

3. ANTENNA MODE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1	OPTION										CBA-31601-DIG-AHS6																													
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12																																								
13																																								
14																																								
15	ANTENNA MODE										<=>										: CABLE																			
16																																								

Receiving Cable/Air signal with equipped/unequipped DTB tuner.

① When DTV tuner is equipped

It is effective during tuner function only (others are gray-downed). The currently viewed ANT A/ANT B function's cable/air (both analog and digital) signal are changed. The channel settings are memorized (memorized by DTV side).

② When DTV tuner is unequipped

It is possible for ANT A/ANT B function to receive air/cable signal.

Channel settings are not memorized. But after leaving factory mode, the settings are maintained.

If the air/ cable signal is changed, the reserved allocation map is written.

For example, if the signal is changed to air, then the air's broadcast map is configured, and cable's broadcast map is destroyed.

If the signal is changed to cable, then the cable's broadcast map is configured, and air's broadcast map is destroyed.

OSD Display	Function	Control Device
CABLE	Change the antenna setting to cable	
AIR	Change the antenna setting to air (analog)	

⑥ INITIALIZE mode

● Operation items

No.	Function/Display	Content	RS-232C
1	SYNC DET(+)	Exclusively used for technical analysis.	—
2	SG MODE ⇔	Paired SG_MODE with SG_PATTERN. Select SG Route.	—
3	SG PATTERN ⇔	Paired SG_MODE with SG_PATTERN. Select SG Pattern.	—
4	SIDE MASK LEVEL(+)	Configure the color of the side mask.	BSL GSL RSL
5	FINAL SETUP(+)	Initialize flash memories on default product status	FST
6	SR+ ⇔	Select SR+ mode or UART SELECT mode.	—
7	UART SELECT ⇔	Select baud Rate on RS-232C Communication	—
8	CVT AUTO ⇔	Exclusively used for technical analysis.	—
9	HDMI INTR POSITION(+)	Exclusively used for technical analysis.	—

1. SYNC DET(+)

Exclusively used for technical analysis (details omitted).

2. SG MODE

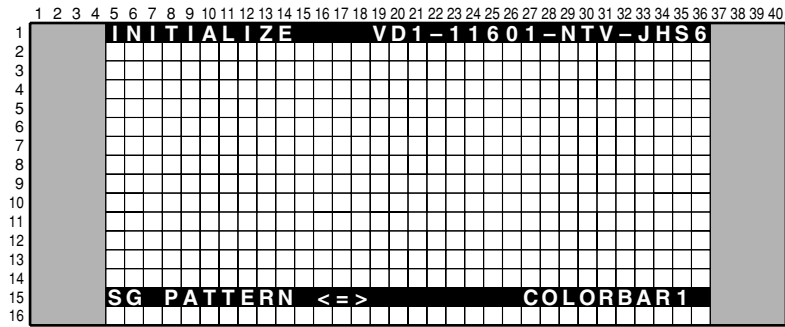
SG MODE (SG's route selection)/SG PATTERN (signal pattern selection) are used as pair.

In SG MODE, select the SG route and then select the SG pattern to be sent by the selected route.

In SG MODE, make sure to select the route first.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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3. SG PATTERN



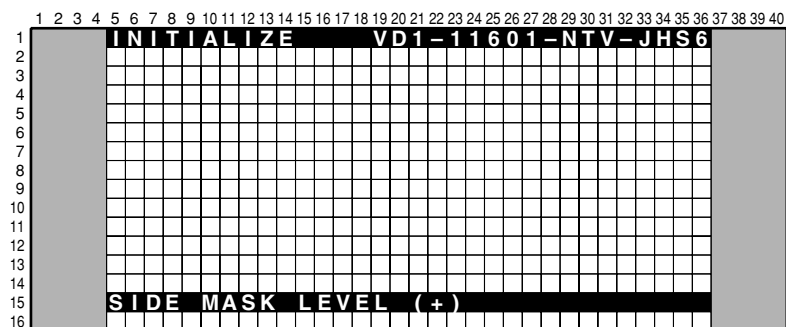
No.	Function/Display	SG Pattern (Brightness IRE Level/Color)	No.	Function/Display	SG Pattern (Brightness IRE Level/Color)
1	COLOR BAR1	Colorbar (75%)	11	RASTER4	Raster (75% Green)
2	COLOR BAR2	Colorbar (100%)	12	RASTER5	Raster (75% Magenta)
3	RAMP1	Ramp (100% White)	13	RASTER6	Raster (75% Red)
4	RAMP2	Ramp (100% Yellow)	14	RASTER7	Raster (75% Blue)
5	RAMP3	Ramp (75% Green)	15	RASTER8	Raster (-% Black)
6	RAMP4	Ramp (75% Red)	16	10STEP1	10STEP (100% White)
7	RAMP5	Ramp (75% Blue)	17	10STEP2	10STEP (100% Yellow)
8	RASTER1	Raster (100% White)	18	10STEP3	10STEP (75% Green)
9	RASTER2	Raster (75% Yellow)	19	10STEP4	10STEP (75% Red)
10	RASTER3	Raster (75% Cyanide)	20	10STEP5	10STEP (75% Blue)

Notes when using SG MODE/SG PATTERN

- During factory mode, choose the correct route when changing.
- Basically, during VDEC SG output, make sure to connect SG output's Y or G to the AVI input terminal of VDEC.
- During SG MODE, turn off the blanking 50IRE setup function.
- During VDEC SG output, set the YC separation setting to NTSC.
- It is possible to use ANALOG OUT MODE together during DIGITAL OUT MODE.
The Main VDEC can output digital color difference, in which colors will appear. But the route to VDEC input cannot be analysed therefore care should be taken when using. Depending on the situation, please use the proper analog/digital output.
- The SG MODE outputs color difference and RGB only. Therefore, in the case of CVBS, only the Y input is used resulting in no color. This is not a damage result nor error.
- The SG MODE's ANA AD RGB (route to input 525i to AD by RGB) as a set's route, the setting does not exist.
For this account the latter part from MVDEC does not have set values, resulting in having funny colors in colorbar, the brightness changes after switching, etc.
This is not a damage result nor error.
- Depending on MVDEC's part version, ANA_MVDEC_YCBCR may not display colors.

A

4. SIDE MASK LEVEL



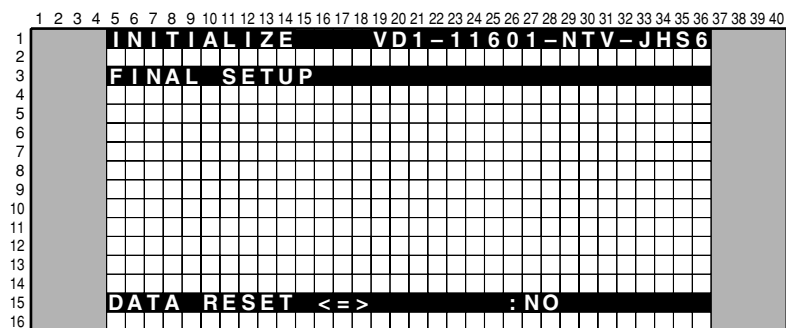
B

To configure sidemask's R, G, B level (To adjust the values, input signal is required).

No.	Display	Content	RS-232C
1	R MASK LEVEL ⇄	Adjust Side Mask R (Adjustable range: 000-255)	RSL
2	G MASK LEVEL ⇄	Adjust Side Mask G (Adjustable range: 000-255)	GSL
3	B MASK LEVEL ⇄	Adjust Side Mask B (Adjustable range: 000-255)	BSL

C

5. FINAL SETUP



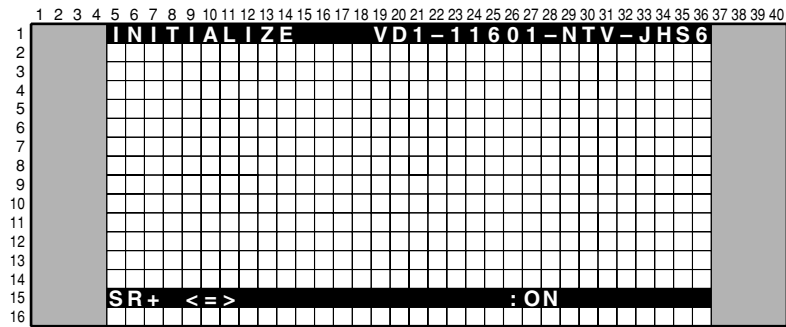
D

To reset each memory value to factory default values. Factory command is "FST".
 When the configuration is set to <NO> and the [SET] key is pressed, no action is taken and the menu returns to previous screen.
 When the configuration is set to <YES> and the [SET] key is pressed for 5 seconds, the reset action executes.

E

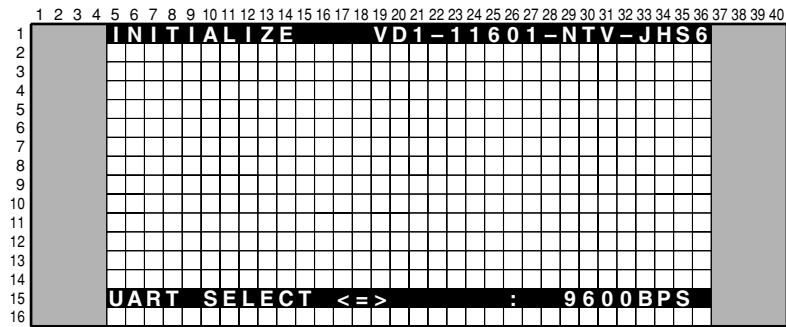
F

6. SR+



To use SR+, select ON. To use RS-232C, select OFF.

7. UART SELECT



When SR+ is OFF, UART SELECT can be selected.

When SR+ is ON, UART SELECT cannot be selected.

Option No.	Display	Operation / Control	RS-232C
1 (Initial setting)	----	To Set to SR+ (9600bps)	SR+ is ON
2	1200	To Set to RS-232C (1200bps)	SR+ is OFF
3	2400	To Set to RS-232C (2400bps)	SR+ is OFF
4	4800	To Set to RS-232C (4800bps)	SR+ is OFF
5	9600	To Set to RS-232C (9600bps)	SR+ is OFF
6	19200	To Set to RS-232C (19200bps)	SR+ is OFF
7	38400	To Set to RS-232C (38400bps)	SR+ is OFF

8. CVT AUTO

Exclusively used for technical analysis (details omitted).

9. HDMI INTR POSITION (+)

Exclusively used for technical analysis (details omitted).

6.7 LIST OF RS-232C COMMANDS

RS-232C commands can be used in Service Factory mode. Before using RS-232C commands, it is necessary to change the factory presetting. See "6.2 USING RS-232C COMMANDS."
Also the RS-232C commands for the panel is not listed. Please refer to panel's service manual.

Command	Operation	Remarks
B		
BSL	Adjust side mask B	
C		
CNG	Clearing MR NG information	
CHR	Clearing MR Hour meter	
CTM	Clearing the modification log	
D		
DW*	Decreasing the adjustment value by*	*:1-9, 0 (0 means 10), F (making the adjustment value the minimum)
F		
FAN	Turning Service Factory mode off.	
FAY	Turning Service Factory mode on.	
C		
FST	Final Set Up	
G		
GSL	Adjusting side mask G	
I		
INA*****##	Selection of tuner for digital signals (Antenna A) and terrestrial analog signals (Antenna A)	***** = Major Channel Number ### = Minor Channel Number
INA***	Selection of tuner for terrestrial analog signals (AntennaA)	*** = Channel Number
INB***	Selection of tuner for terrestrial analog signals (Antenna B)	*** = Channel Number Cable: 1-125ch, Air: 2-69ch
ING	Selection of iLink input functions	
INH	Selection of Home Gallery input functions	Elite Mode only
INPS01	Input selection: input 1	
INPS02	Input selection: input 2	
INPS03	Input selection: input 3	
INPS04	Input selection: input 4	
INPS05	Input selection: input 5	
O		
OSDS00	Turning On-Screen Display ON	Prohibit On-Screen Display.
OSDS01	Turning On-Screen Display OFF	Permit On-Screen Display.
P		
POF	Turning the power off.	
PON	Turning the power on.	
Q		
QS1	Obtaining the version data for each device.	
QS6	Obtaining the any version.	
QMT	Obtaining the MR temperature information.	
QNG	Obtaining NG data of the MR.	
R		
RSL	Adjust side mask R	
T		
TSN	Disable the TRAP switch	
TSY	Enable the TRAP switch	
U		
UP*	Increasing the adjustment value by *	*:1-9, 0 (0 means 10), F (making the adjustment value the maximum)
Z		
ZME	Initialize video EEPROM data	

6.8 OUTLINE OF COMMANDS

QS1: Returning information on the module and the version of the software.

Order	Part	Data Content	Size	Remarks
0	-	Received Command Name on MR	3 byte	'QS1' only
1	MDU	Display Information 1	1 byte	
2		Display Information 2	1 byte	
3		Display Information 3	1 byte	
4		Display Information 4	1 byte	
5		Display Information 5	1 byte	
6		Boot Version of Module microcomputer.	3 byte	
7		Program Version of Module microcomputer.	8 byte	
8		Boot Version of ASTRA-MANTA	3 byte	
9		Program Version of ASTRA-MANTA	8 byte	
10		Sequence Version (43VIDEO)	4 byte	
11		Sequence Version (43PC)	4 byte	
12		Sequence Version (50VIDEO)	4 byte	
13		Sequence Version (50PC)	4 byte	
14	MR	, (comma)	1 byte	
15		MR Infomation 1	1 byte	
16		MR Infomation 2	1 byte	
17		MR Infomation 3	1 byte	
18		MR Infomation 4	1 byte	
19		Version of IF microcomputer	4 byte	
20		Version of Main microcomputer	8 byte	
21		Boot Version of Main microcomputer	4 byte	
22		Program Version of CARRERA-MANTA	8 byte	
23		Boot Version of CARRERA-MANTA	4 byte	
24		GUI Version of CARRERA-MANTA	8 byte	
25		Enhanced Version of CARRERA-MANTA	8 byte	
26		PIC Version of CARRERA-MANTA	8 byte	

QS6: Returning information of the Flash Device.

Order	Data Content	Size	Remarks
0	Received Command Name on MR	3 byte	'QS6' only
1	Hardware Version of DTV	8 byte	
2	Hardware Serial of DTV	8 byte	
3	Runtime Version of DTV	8 byte	
4	CFE Version	8 byte	
5	KERNEL Version	8 byte	
6	ROOTFS Version	8 byte	
7	FLAGS Information 1 (H/W: 'Y' or 'N')	1 byte	
8	FLAGS Information 2 (1394: 'Y' or 'N')	1 byte	
9	FLAGS Information 3 (DVR: 'Y' or 'N')	1 byte	
10	FLAGS Information 4 (FONTS: 'Y' or 'N')	1 byte	
11	FLAGS Information 5 (DFAST: 'Y' or 'N')	1 byte	
12	Version of CCD-UCOM	4 byte	
13	Version of PC-CARD	8 byte	
14	User Password	4 byte	

A

QMT: Returning information of MR temperature and FAN speed.

Order	Data Content	Size	Remark
0	Received Command Name on MR	3 byte	'QMT' only
1	MR Temperature	3 byte	
2	MR FAN Speed	1 byte	0: STOP 1: MIN 2: MAX

QNG: Returning data (logs keep on Main microcomputer) on shutdown of Media Receiver.

B

Order	Data	Size	Context
0	Received Command Name on MR	3 byte	'QNG' only
1	Latest NG data	1 byte	
2	Data of subcategory for the latest NG	1 byte	
3	Data of MR hour meter for the latest NG	7 byte	
4	Data of temperature for the latest NG	3 byte	
5	2nd latest NG data	1 byte	
6	Data of subcategory for the 2nd latest NG	1 byte	
7	Data of MR hour meter for the 2nd latest NG	7 byte	
8	Data of temperature for the 2nd latest NG	3 byte	
:	:	:	
29	8th latest NG data	1 byte	
30	Data of subcategory for the 7th latest NG	1 byte	
31	Data of MR hour meter for the 7th latest NG	7 byte	
32	Data of temperature for the 7th latest NG	3 byte	

C

• Details of Data and subcategory

Data	Cause of Shutdown	Remarks
0	Normal	
1	Failure of communication to Module microcomputer	
2	3-wire Serial Communication of Main microcomputer.	Subcategory ⇒ 1
3	IIC Communication failure of Main microcomputer	Subcategory ⇒ 2
4	Communication failure of Main microcomputer & Unknown Error	
5	Fan stopped	
6	Abnormally high temperature at MR.	
7	Failure of Digital Tuner	Subcategory ⇒ 3
8	Abnormally in RST2 of MR (power decrease of DC-DC converter)	
9	Failure at Home Gallery	Subcategory ⇒ 4

D

E

• Data on Subcategories for failure in 3-wire serial communication of Main microcomputer (subcategory 1)

Data	Cause of Shutdown	Remarks
0	Non subcategory	
1	Communication failure of IF microcomputer	Power OFF
2	MANTA communication failure (MULIT1)	Power OFF
4	MANTA communication failure (I/P)	
5	MANTA communication failure (D-SEL)	

F

• Data on Subcategories for failure in IIC communication of Main microcomputer (subcategory 2)

Data	Cause of Shutdown	Data	Cause of Shutdown
0	Non subcategory	A	AD/PLL
1	Analog Tuner 1 (Front End 1)	B	HDMI
2	Analog Tuner 2 (Front End 2)	C	TMDS Tx
3	MPX	D	TMDS Rx
4	AV Switch	E	M2 Communication
5	RGB Switch	F	M2 Busy
6	CCD	G	64k EEPROM
7	GCR		
8	Main VDEC		
9	Sub VDEC		

• Data on Subcategories for failure in DTB communication of Main microcomputer (subcategory 3)

Data	Cause of Shutdown	Remarks
0	Non subcategory	
1	Failure to DTB Starting	
2	Communication failure to DTB	
3	DTB Device Error	
4	TV-Guide Error	

• Data on Subcategories for failure at Home Gallery (subcategory 4)

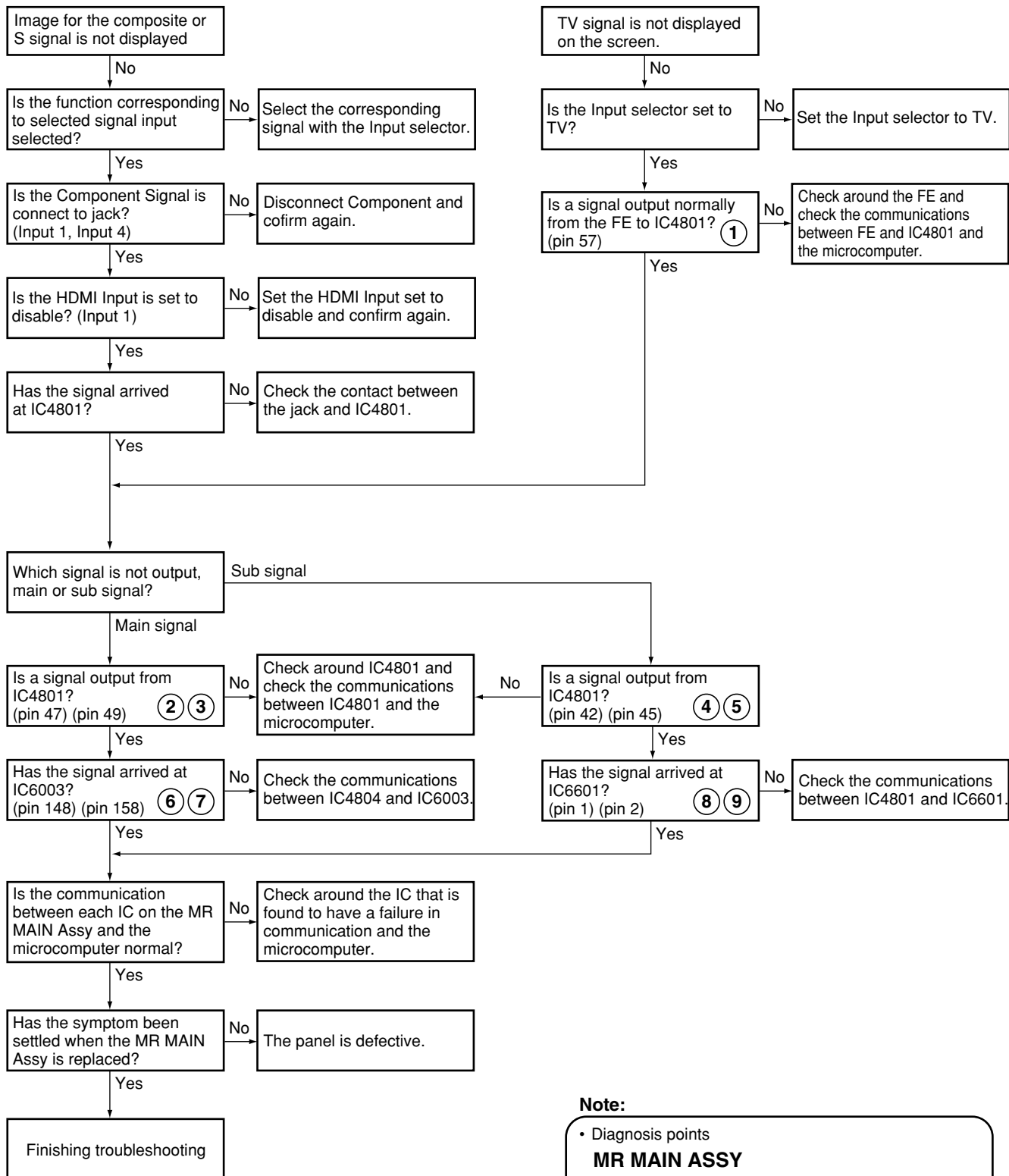
Data	Cause of Shutdown	Remarks
0	Non subcategory	
1	Failure of PC Card Communication	
2	Failure of PC Card	
3	PC Card Reset NG	

7. GENERAL INFORMATION

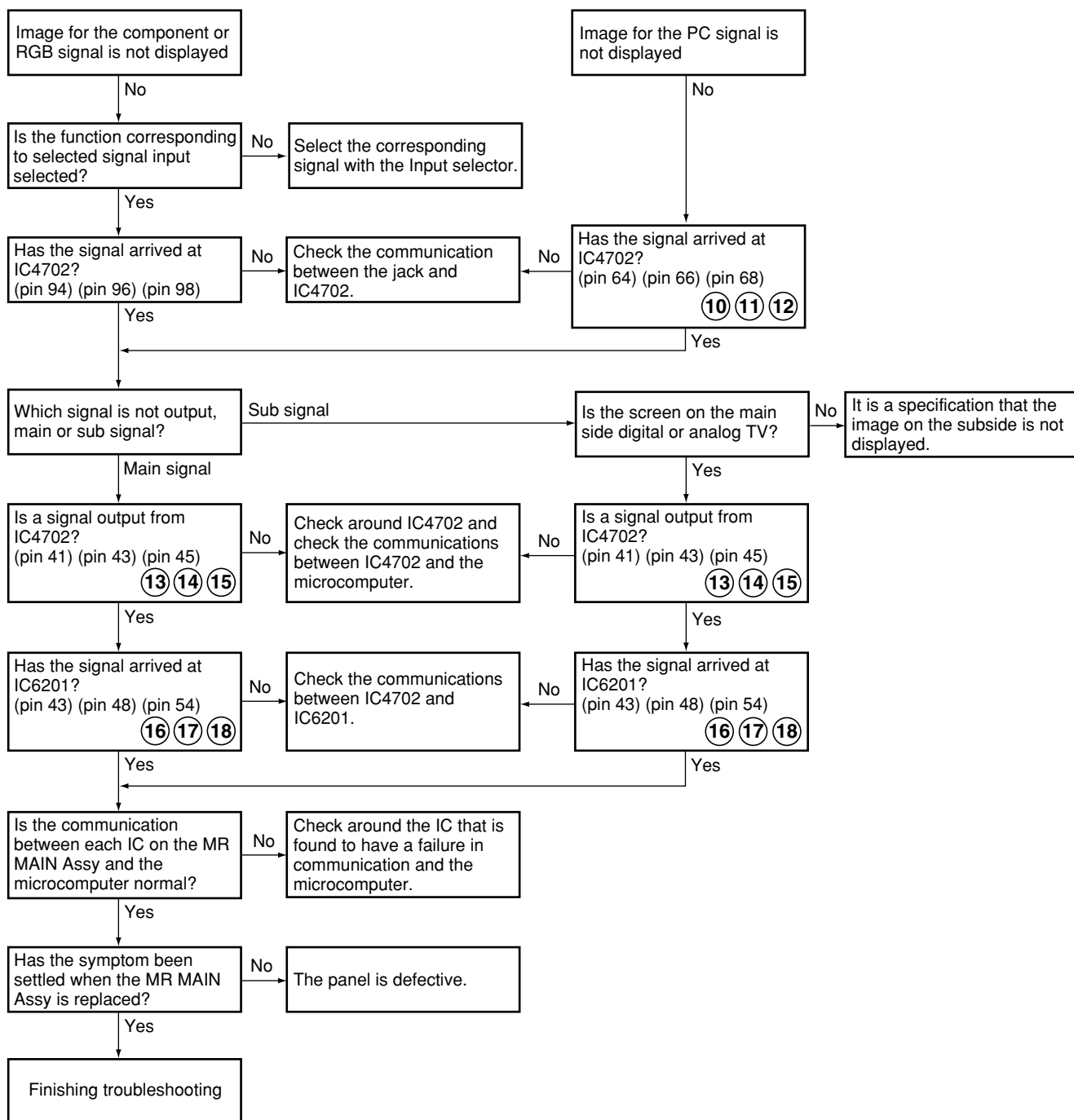
7.1 DIAGNOSIS

7.1.1 TROUBLESHOOTING

● Image for the composite or S or TV signal is not displayed



● Image for the component or RGB or PC signal is not displayed



A

● The image of the PC card doesn't come out

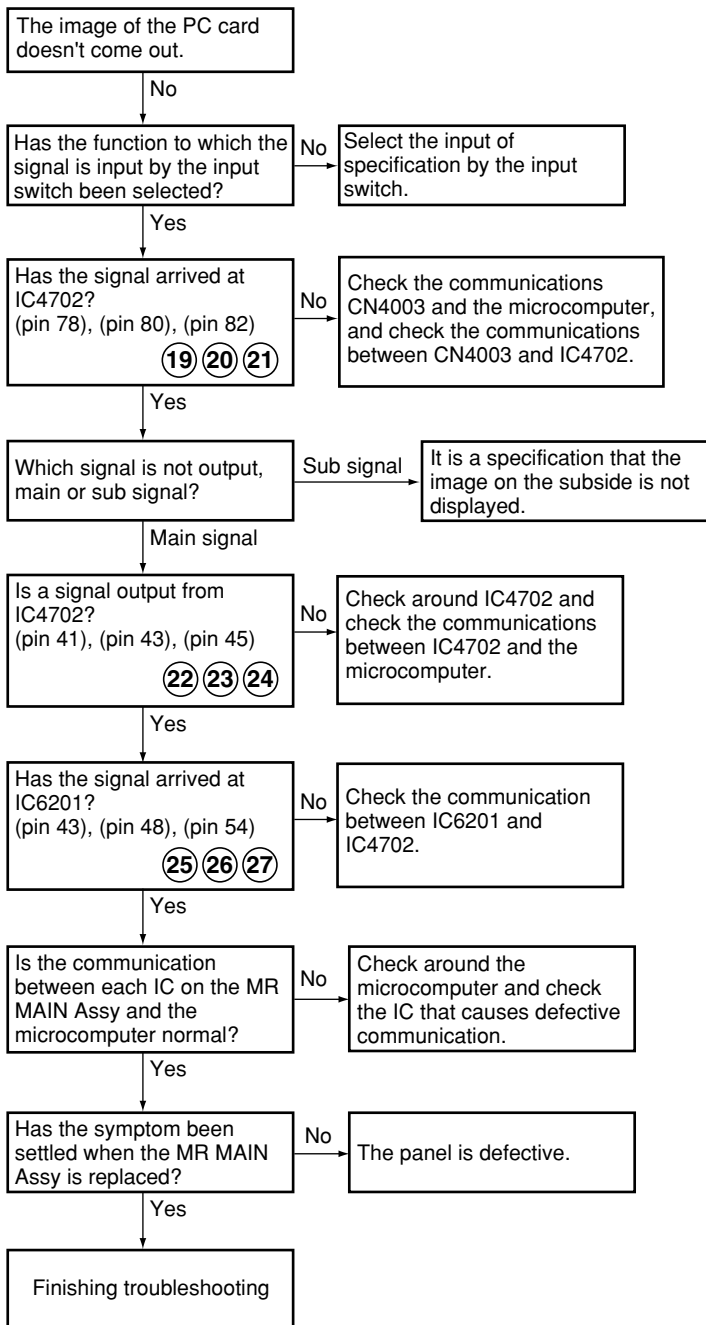
B

C

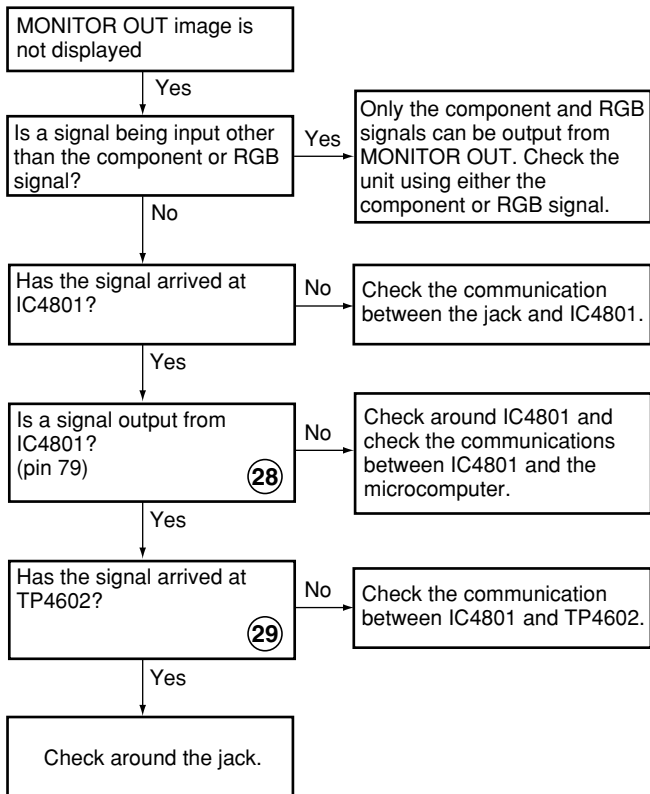
D

E

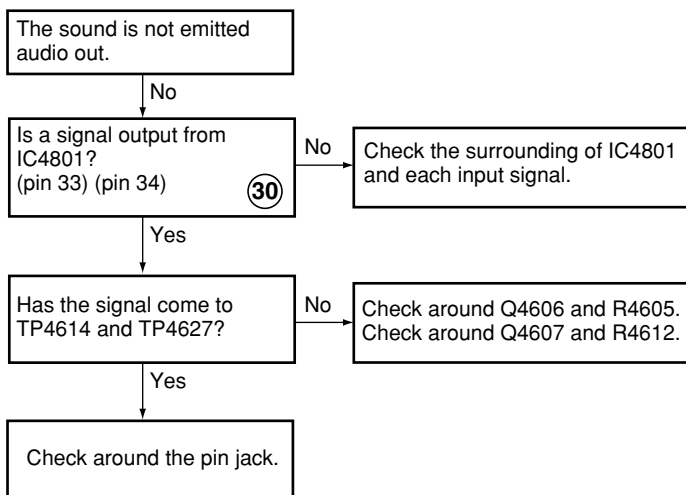
F



● MONITOR OUT image is not displayed



● The sound is not emitted audio out



● No sound from the speakers

A

No sound from the speakers

Yes

Is sound muting set?

Yes

Cancel muting then check again.

No

Is the volume set to "0"?

Yes

Raise the volume then check again.

No

B

Is it the only TV sound that doesn't come out?

No

Is it only the FRONT input sound that doesn't come out?

No

Is the flexible cable between CN4001 and CN7804 connected normal?

No

Connect Flexible cable, then check again.

Yes

Is a signal input to IC4801? (pin 25), (pin 26)

C

Is a signal input to IC4401? (pin 1), (pin 3)

No

Check the communications around the FE (U4401 or U4402) and between the FE (U4401 or U4402) and the microcomputer.

Yes

Is a signal input to IC4402? (pin 7) ③③

No

Check around IC4402 and check the communications between IC4402 and the FE.

Yes

Is a signal output from IC4402? (pin 22), (pin 23) ③④

No

Check the communications around the IC4402 and between the IC4402 and the microcomputer.

Yes

D

Is a signal input to IC4801? (pin 19), (pin 20) ③⑤

No

Check the communication between IC4402 and IC4801.

Yes

Is a signal output from IC4801? (pin 35), (pin 36) ③⑧

No

Check around IC4801 and check the communications between IC4801 and the microcomputer.

Yes

E

Is a signal output from CN4005? (pin 35), (pin 36)

No

Check the communication between CN4005 and CN1402.

Yes

Has the signal come to CN7201? (pin 13), (pin 20) ③⑨

No

Check the communication between CN7201 and IC4801.

Yes

Has the symptom been settled when the system cable is replaced?

No

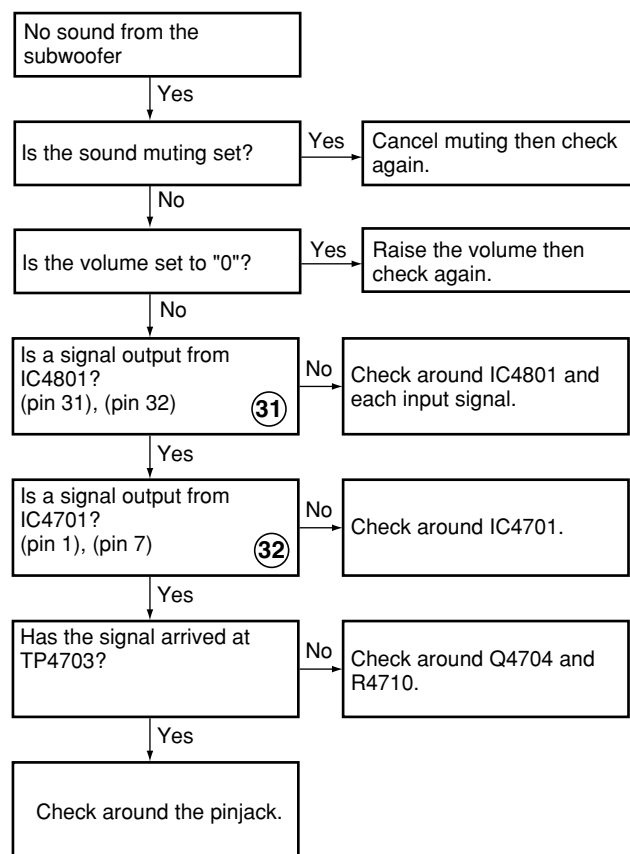
The panel is defective.

Yes

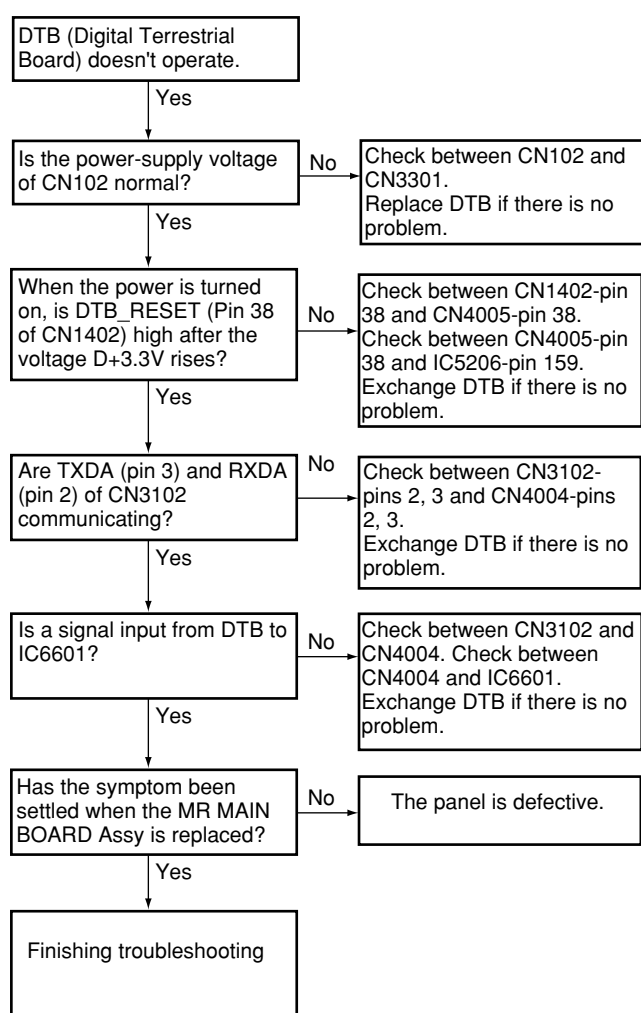
F

Finishing troubleshooting

● No sound from the subwoofer



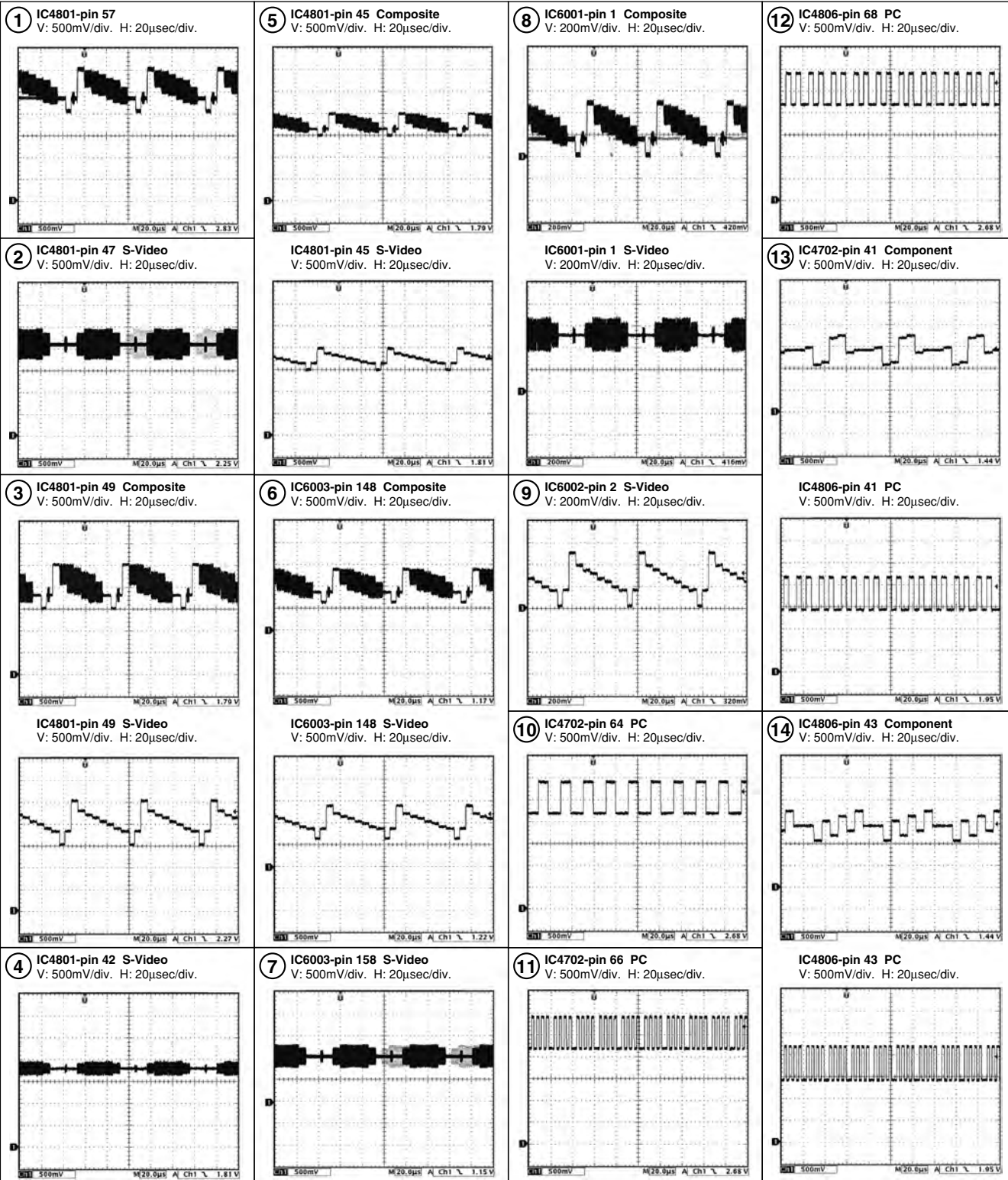
● DTB (Digital Terrestrial Board) doesn't operate



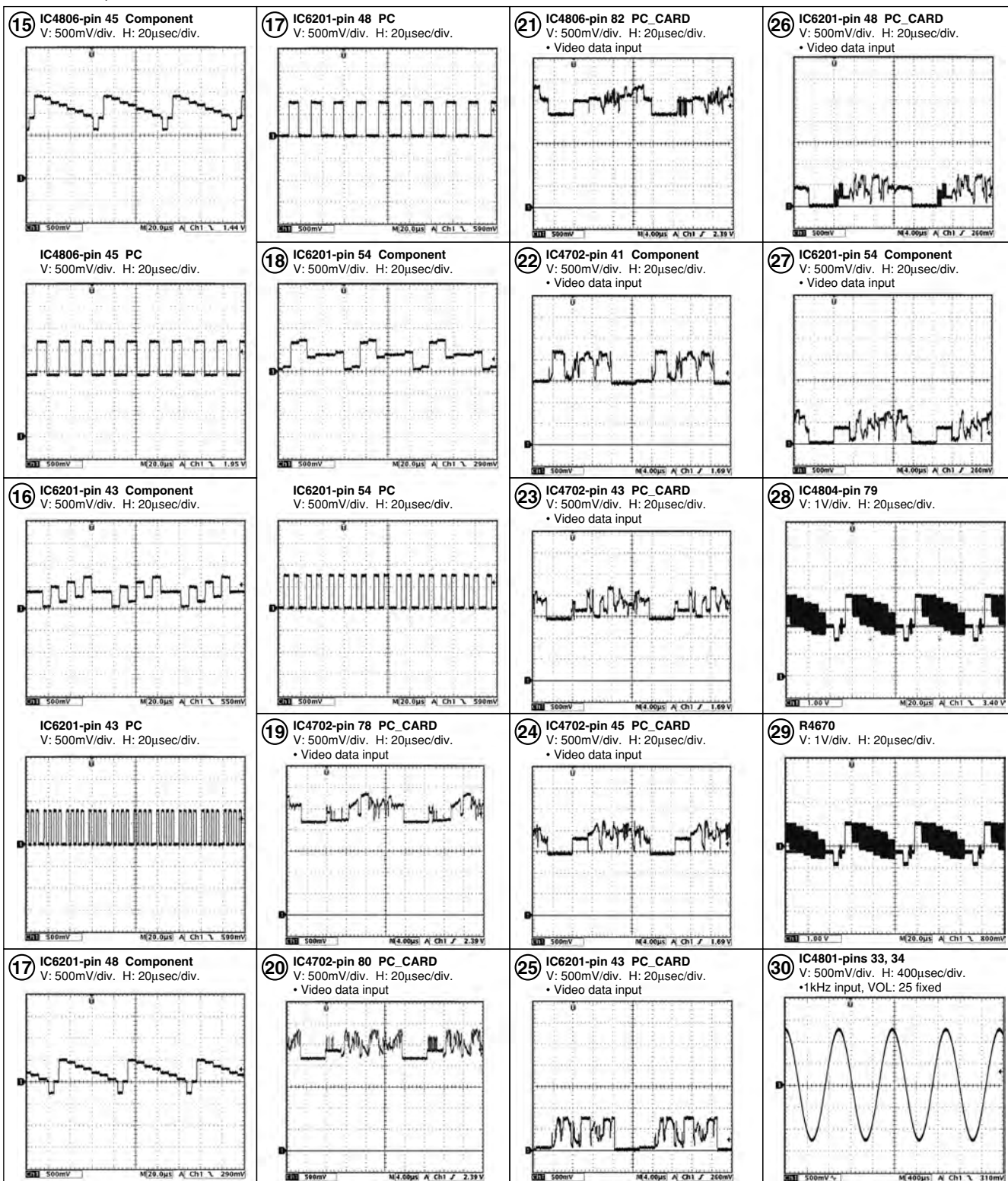
Waveforms for Troubleshooting

MR MAIN ASSY

• Color-bar input unless otherwise noted



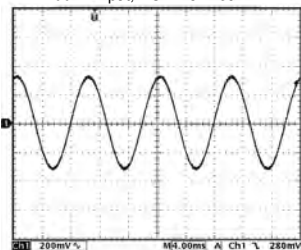
• Color-bar input unless otherwise noted



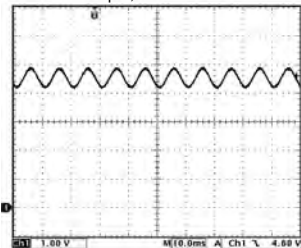
A

• 1kHz input, VOL: 25 fixed unless otherwise noted

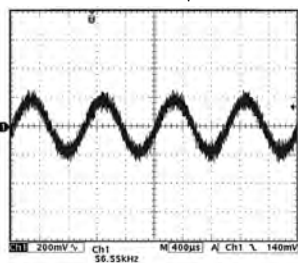
31 IC4804-pins 31, 32 AC-SUBWOO
V: 200mV/div. H: 4msec/div.
•100Hz input, VOL: 25 fixed



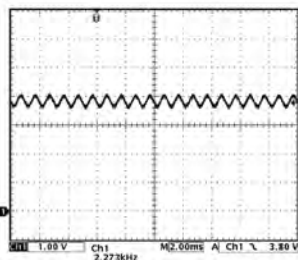
IC4804-pins 31, 32 DC-SUBWOO
V: 1V/div. H: 10msec/div.
•100Hz input, VOL: 25 fixed



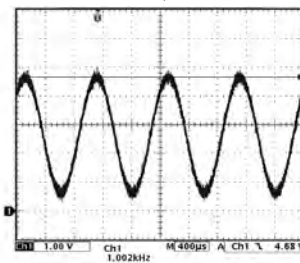
34 IC4401-pins 30, 31 AC
V: 200mV/div. H: 400μsec/div.



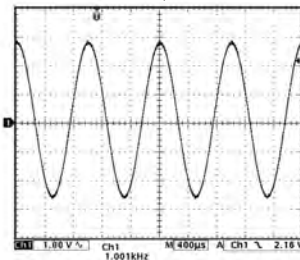
IC4401-pins 30, 31 DC
V: 1V/div. H: 2msec/div.



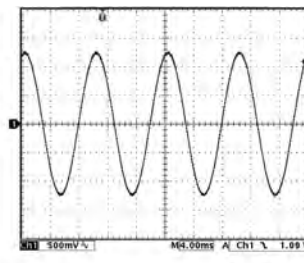
36 IC6405-pins 7, 8 DC
V: 1V/div. H: 400μsec/div.



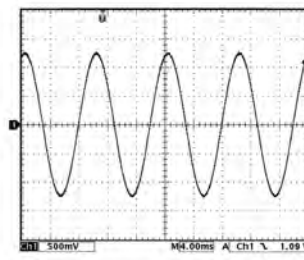
37 IC4804-pins 10, 11 AC
V: 1V/div. H: 400μsec/div.



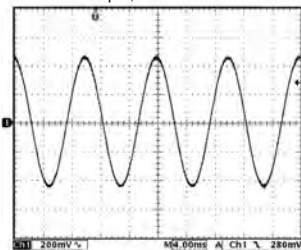
39 CN7201-pins 13, 20 AC
V: 500mV/div. H: 4msec/div.



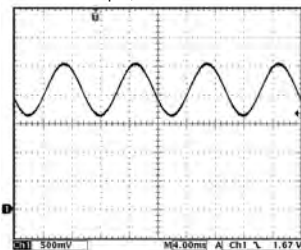
CN7201-pins 13, 20 DC
V: 500mV/div. H: 4msec/div.



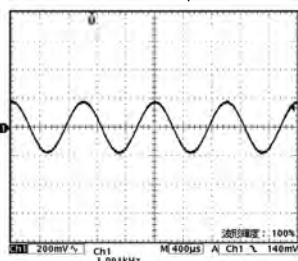
32 IC4808-pins 1, 7 AC-SUBWOO
V: 200mV/div. H: 4msec/div.
•100Hz input, VOL: 25 fixed



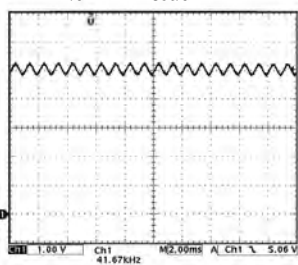
IC4808-pins 1, 7 DC-SUBWOO
V: 500mV/div. H: 4msec/div.
•100Hz input, VOL: 25 fixed



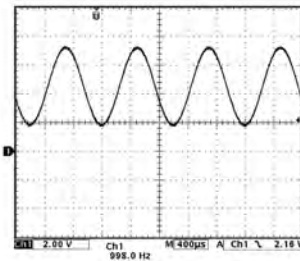
35 IC4804-pins 19, 20 AC
V: 200mV/div. H: 400μsec/div.



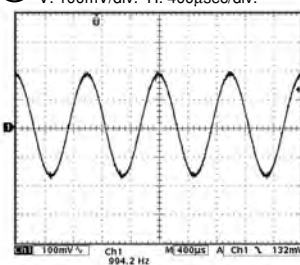
IC4804-pins 19, 20 DC
V: 1V/div. H: 2msec/div.



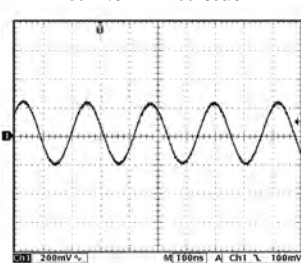
IC4804-pins 10, 11 DC
V: 2V/div. H: 400μsec/div.



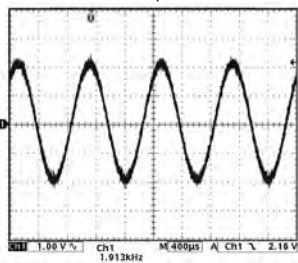
38 IC4804-pins 35, 36 AC
V: 100mV/div. H: 400μsec/div.



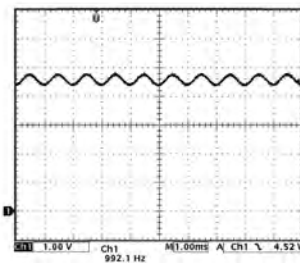
33 U4401-pin 18 = C4403
V: 200mV/div. H: 100nsec/div.



36 IC6405-pins 7, 8 AC
V: 1V/div. H: 400μsec/div.



IC4804-pins 35, 36 DC
V: 1V/div. H: 1msec/div.



B

C

D

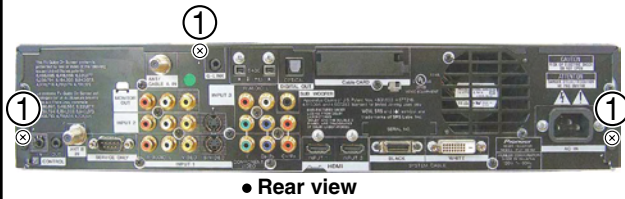
E

F

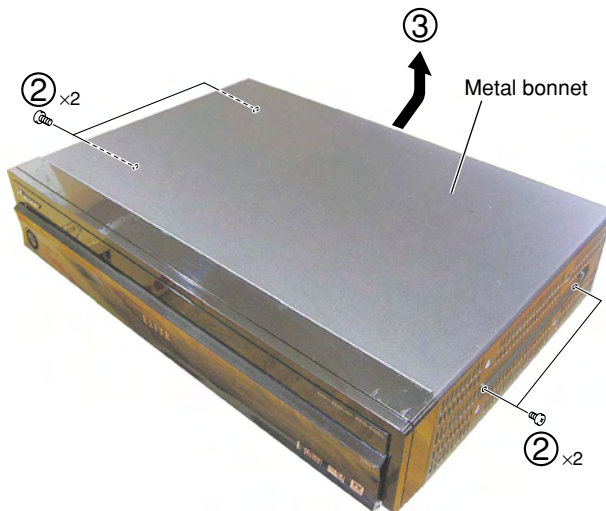
Note : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

1 Metal Bonnet

- ① Remove the three screws.

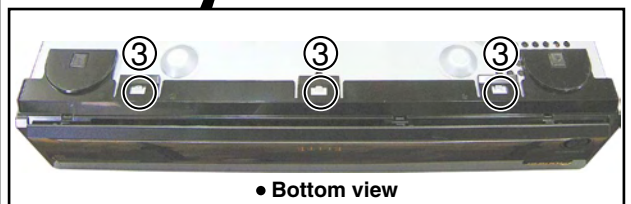
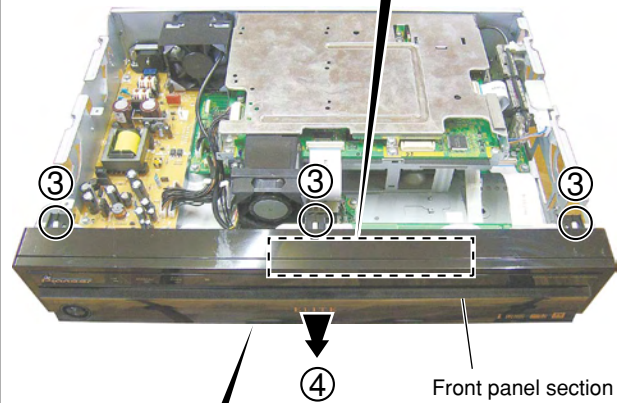
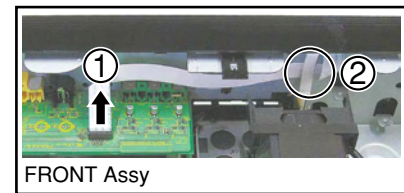


- ② Remove the four screws.
- ③ Remove the metal bonnet while pulling it backward.



2 Front Panel Section

- ① Disconnect the flexible cable.
- ② Remove the flexible cable from the flat clamp.
- ③ Unhook the six hooks.
- ④ Remove the front panel section.

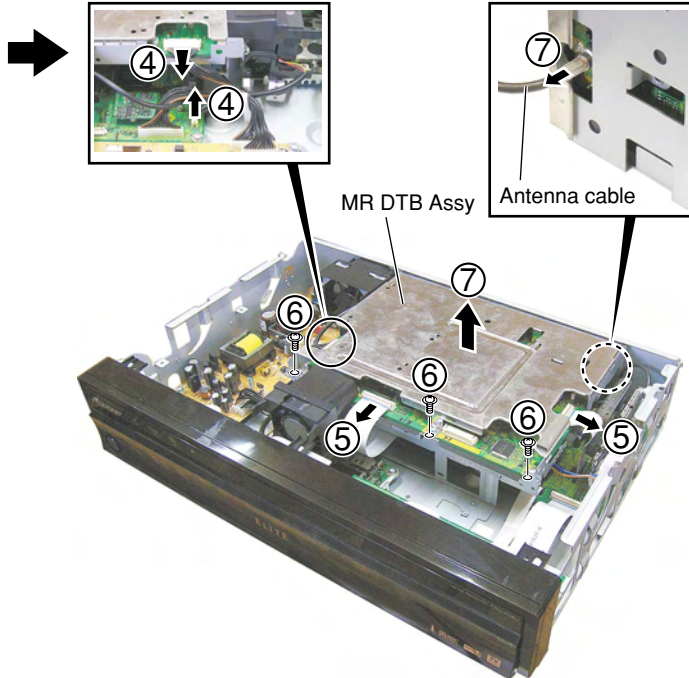
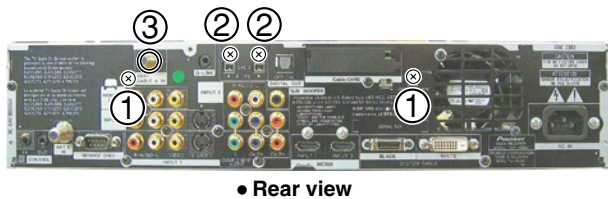


3 MR DTB Assy

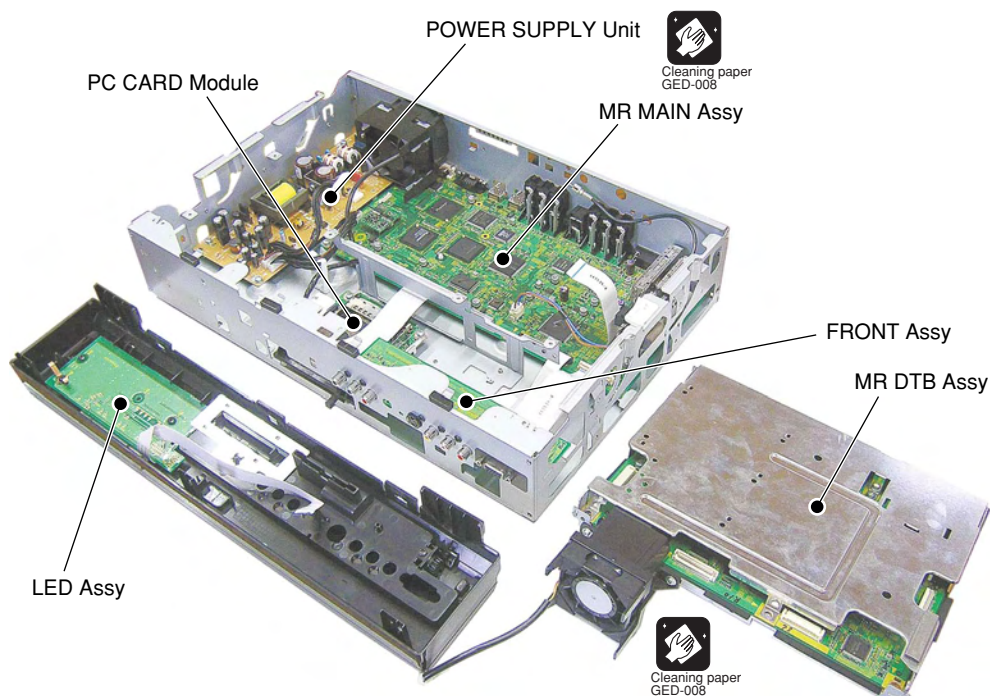
Note : MR DTB Assy can remove even if does not remove the front panel section.

- ① Remove the two screws.
- ② Remove the two screws.
- ③ Remove the one nut.

- ④ Disconnect the two connectors.
- ⑤ Disconnect the two flexible cables.
- ⑥ Remove the three screws.
- ⑦ Remove the antenna cable.
- ⑧ Remove the MR DTB Assy.



PCB Location

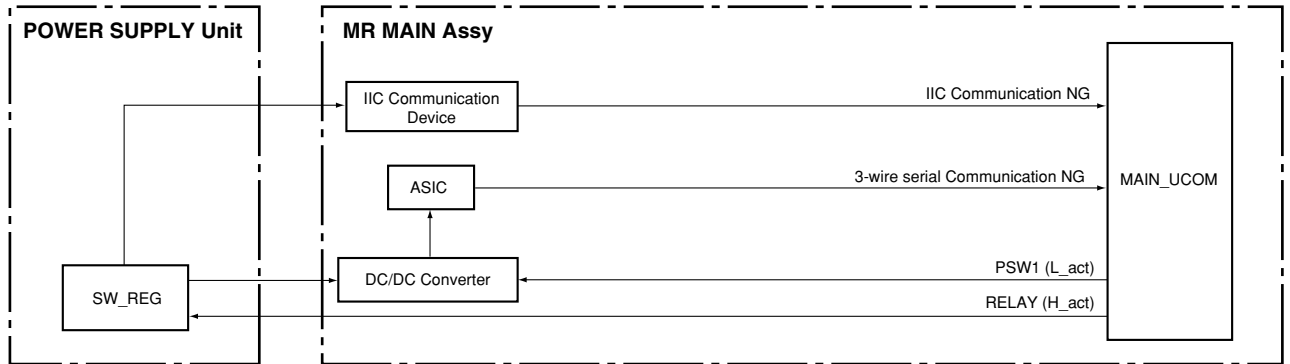


7.2 EXPLANATION

7.2.1 PROCESSING IN ABNORMALITY

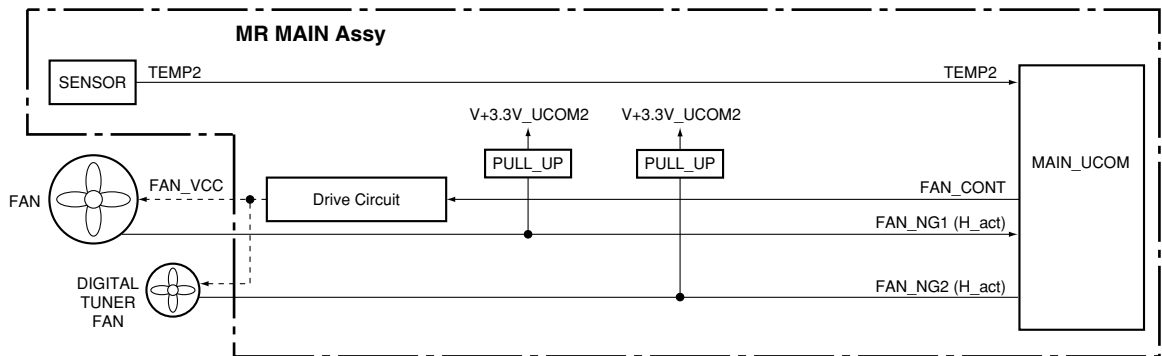
Power supply and DC-DC converter

● Circuit diagram



Fan and temperature sensor

● Circuit diagram

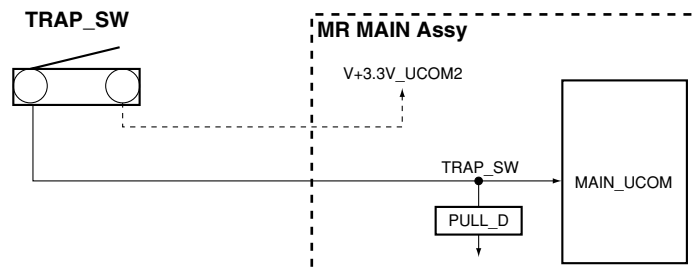


● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
FAN_NG 1	FAN	155	Shutdown with H
FAN_NG 2	FAN	104	Shutdown with H
TEMP2	Abnormally high temperature in the MR	76	Shutdown when the value exceeds the predetermined value

TRAP_SW

● Circuit diagram



● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
TRAP_SW	Modification tried	151	OFF with L

A

B






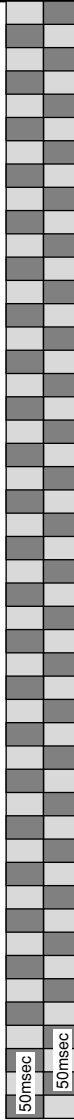
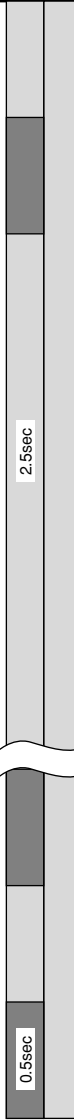
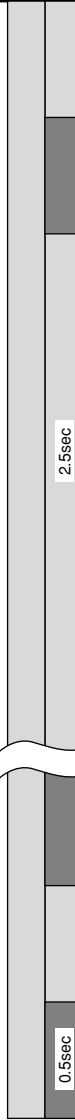

C

D

E

F

LED-lighting patterns

Status of the Unit		LED-lighting Pattern
Standby, power management	Lit in red	
Power on	Lit in blue	
PDP's power not on	Flashing in red (at 1-sec intervals)	
System cable disconnected *	Flashing alternately in red and blue (at 1-sec intervals)	
Waiting for start of rewriting by the microcomputer		
Waiting for finish of rewriting by the microcomputer		
Shutdown (circuit protection)	Flashing in blue n times (initially at 0.5-sec intervals then 2.5-sec intervals)	
Power-down (circuit protection)	Flashing in red for n times (initially at 0.5-sec intervals then 2.5-sec intervals)	
TRAP switch operation		

* In this case, the red and blue areas on the screen of the panel flash alternately.

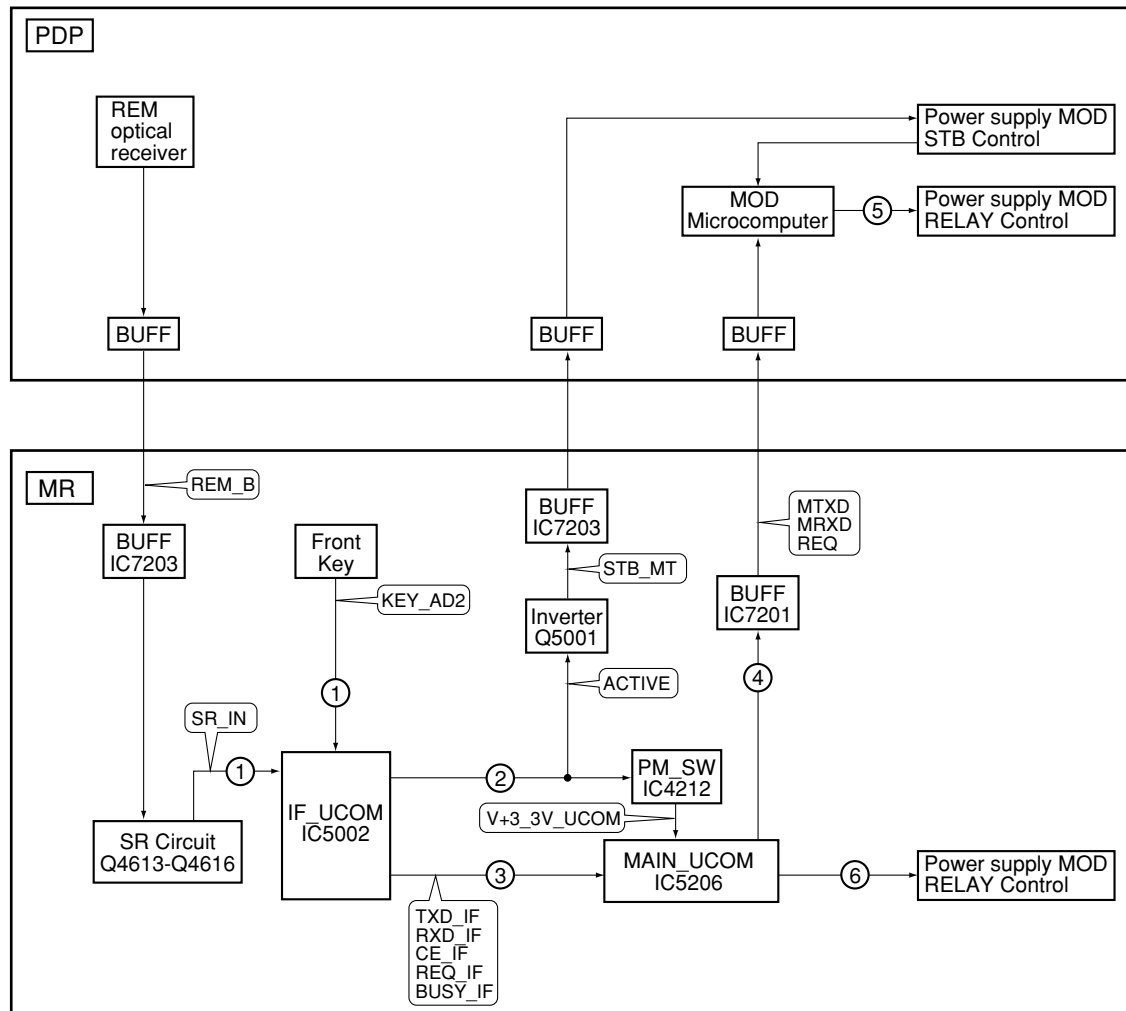
■ Defective points assumed from the number of times of LED flashing

No. of times of LED flashing LEDs on the panel LEDs on the MR				Category *1	Site detected as defective	Possible defective points (representative examples)	OSD when detected (warning message)
Red	Blue	Red	Blue				
	Blue 1	Red			Panel drive IC	*2	None
	Blue 2	Red			Module section IIC	*2	None
	Blue 3	Red			Power decrease of DIGITAL-DC-DC	*2	None
	Blue 4	Red			Panel having abnormally high temperature	*2	Power off. Internal temperature is too high. Check temperature around PDP. [SD04] *6
	Blue 5	Red			Short-circuiting of the speakers	*2	Internal protection circuit turns power off. Is there a short in speaker cable? (SD05)
Red			Blue 6	SD	Module microcomputer	Disconnection of the system cable Defective module microcomputer or its peripheral circuits of the PDP-436PU or PDP-506PU. Defective main microcomputer (IC5206) Failure in communication (TXD_MD, RXD_MD, REQ_MD) between the panel's module microcomputer and IC5206 (main microcomputer)	None
Red			Blue 7		3-wire serial connection of the main section	Defective IC5002 or its peripheral circuits Failure in communication (TXD_IF, RXD_IF, CLK_IF, CE_IF, REQ_IF, BUSY_IF) between IC5002 and IC5206 (main microcomputer) Defective IC7001 or its peripheral circuits Failure in communication (TXD_IC3, RXD_IC3, CLK_IC3, IC3, REQ_IC3, BUSY_IC3) between IC7001 and IC5206 (main microcomputer)	None
Red			Blue 8		IIC of the main section	Defective U4401 (FE1) or its peripheral circuits Defective IC4401 (MPX) or its peripheral circuits *3 Defective IC4702 (RGB_SW) or its peripheral circuits Defective ICxxxx (GCR) or its peripheral circuits *4 Defective IC6001 (S-VDEC) or its peripheral circuits *5 Defective IC6404 (HDMI) or its peripheral circuits Defective ICxxxx (PLK-R) or its peripheral circuits Defective IC5405 (TTX-COM, TTX-BSY) or its peripheral circuits *3 Defective IC5202 (MA-EEP) or its peripheral circuits Failure in communication (SCL_AV, SDA_AV, SCL_MA, SDA_MA, SCL_EP, SDA_EP, SCL_HDCP, SDA_HDCP) Failure in communication (TXD_AV, RXD_AV, SCL_MA, SDA_MA, SCL_EP, SDA_EP, SCL_HDCP, SDA_HDCP)	None
Red			Blue 9		Main microcomputer	Defective IC5206 (main microcomputer) Failure in communication (TXD_IF, RXD_IF, CLK_IF, CE_IF, BUSY_IF) between IC5206 (main microcomputer) and IC5002	None
Red			Blue 10		Fan	Failure in the fan motor, or the fan stopped because of dust attached to the fan	None
Red			Blue 11		MR or unit having abnormally high temperature	The Media Receiver or the unit being used at high temperature	Power off. Internal temperature is too high. Check temperature around media receiver. [SD011]
Red			Blue 12		Digital tuner	Defective DTV tuner Failure in communication (TXD_DT, RXD_DT) between the digital tuner and IC5206 (main microcomputer)	None
Red			Blue 13		ASIC power supply (DC-DC)	Defective U4201 (DD_CON) or short-circuiting elsewhere *6	None
Red 2		Red		PD	POWER	*2	None
Red 3		Red			SCAN	*2	None
Red 4		Red			SCAN-5V	*2	None
Red 5		Red			Y-DRV	*2	None
Red 6		Red			Y-DCDC	*2	None
Red 7		Red			Y-SUS	*2	None
Red 8		Red			ADRS	*2	None
Red 9		Red			X-DRV	*2	None
Red 10		Red			X-DCDC	*2	None
Red 11		Red			X-SUS	*2	None
Red 12		Red			D-DCDC	*2	None
Red 13		Red			IC4	*2	None
Red 15		Red			UNKNOWN	*2	None

*1: Shutdown (SD) is a protective operation controlled by the microcomputer, and you can turn on the unit again using the remote control unit. Power-down (PD) is a protective operation activated by the circuitry and can be reset after AC power is off for about 1 minute.

*2: Refer to the service manual of the PDP-436PU or PDP-506PU.
*3: Only for EU and IRD model. *4: Only for J model.
*5: Except for US model. *6: Only for one-body model.

7.2.2 POWER ON SEQUENCE



REM_B Comment in the balloon is the reference signal name.
Please confirm the wiring number of PDP side with the service manual of PDP side.

- ① : Remote controller signal (or, KEY signal) is input into IF microcomputer.
- ② : IF microcomputer supplies the power supply to Main microcomputer and MOD microcomputer.
- ③ : IF microcomputer communicates the operation information of Remote controller (or KEY) to Main microcomputer.
- ④ : Main microcomputer sends in the activation order to MOD microcomputer.
- ⑤ : MOD microcomputer controls the relay of PDP power supply MOD, and activate the power supply of PDP side.
- ⑥ : Main microcomputer controls the relay of MR power supply MOD, and activate the power supply of MR side.

7.3 PARTS

7.3.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

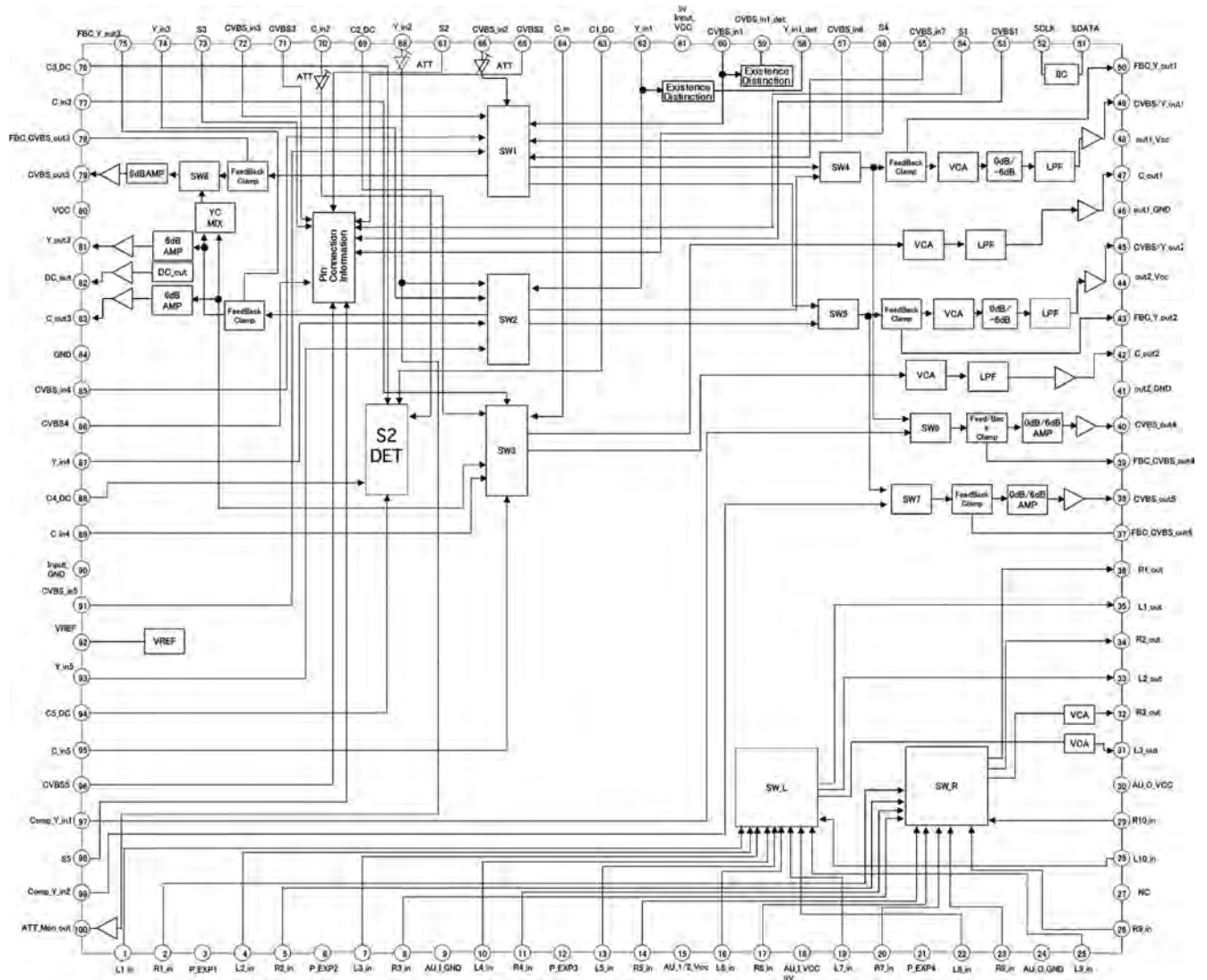
• List of IC

R2S11002AFT, R2S11001FT, UPD64015GM-UEU, K4S161622H-TC60, AD9985KSTZ-110, SII9021CTU, K4S643232H-TC60, MBM29DL162TE70TN, SII170BCLG64, AXY1117, AXF1130, AXF1148

■ R2S11002AFT (MR MAIN ASSY: IC4801)

• AV SW

• Block Diagram

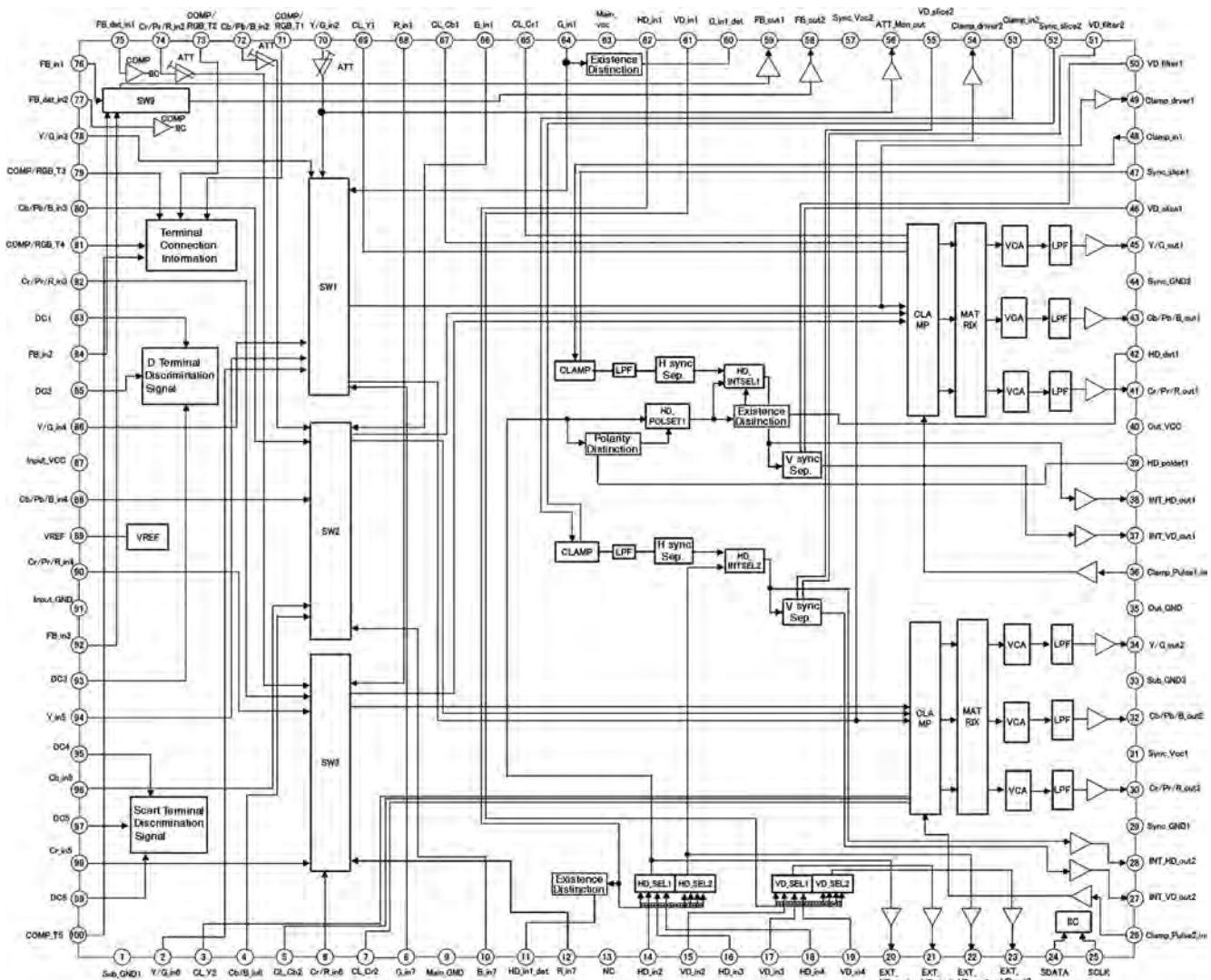


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■ R2S11001FT (MR MAIN ASSY: IC4702)

- Component SW IC

- **Block Diagram**



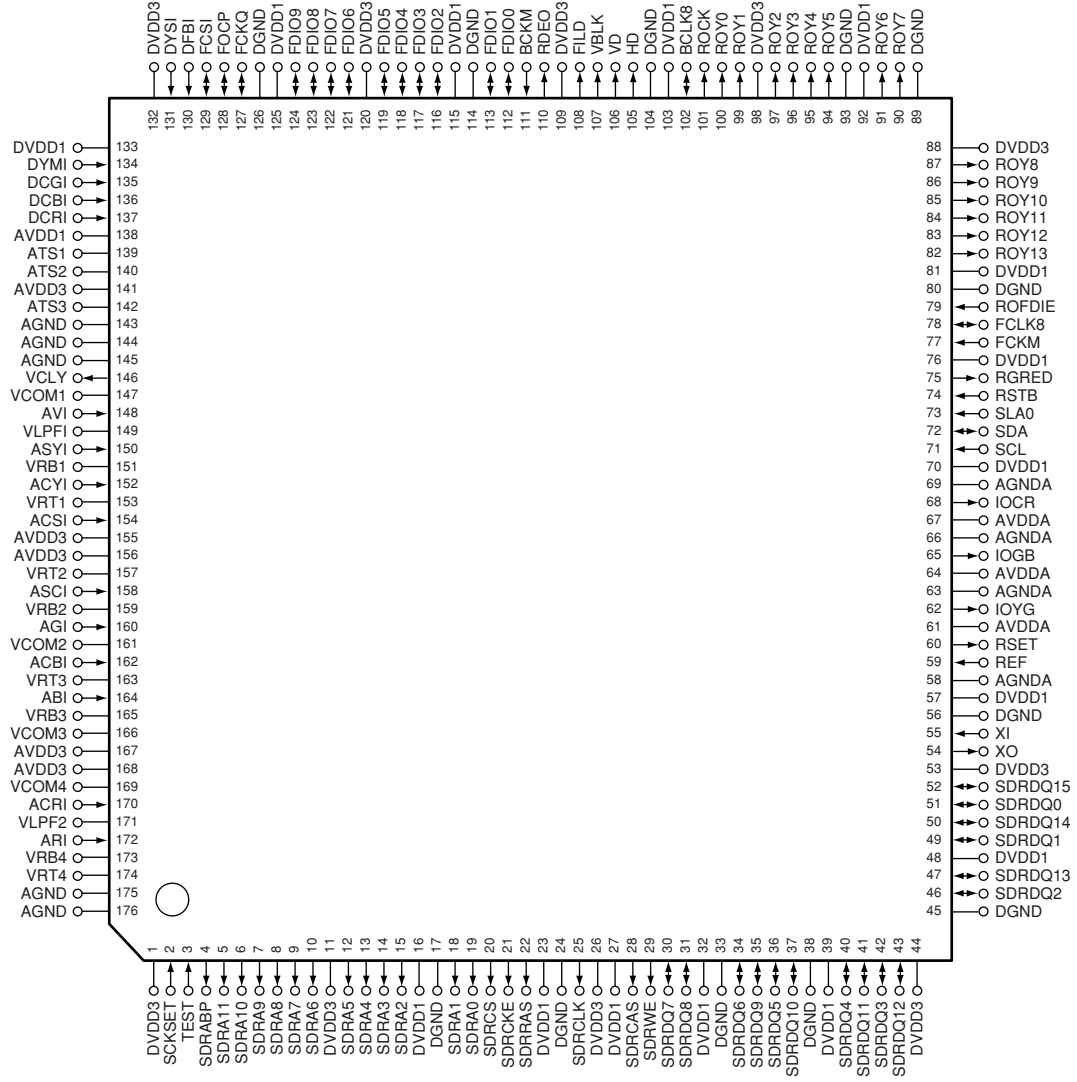
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UPD64015GM-UEU (MR MAIN ASSY : IC6003)

• Video Decoder (for main screen)

Pin Arrangement (Top view)



A ● Block Diagram

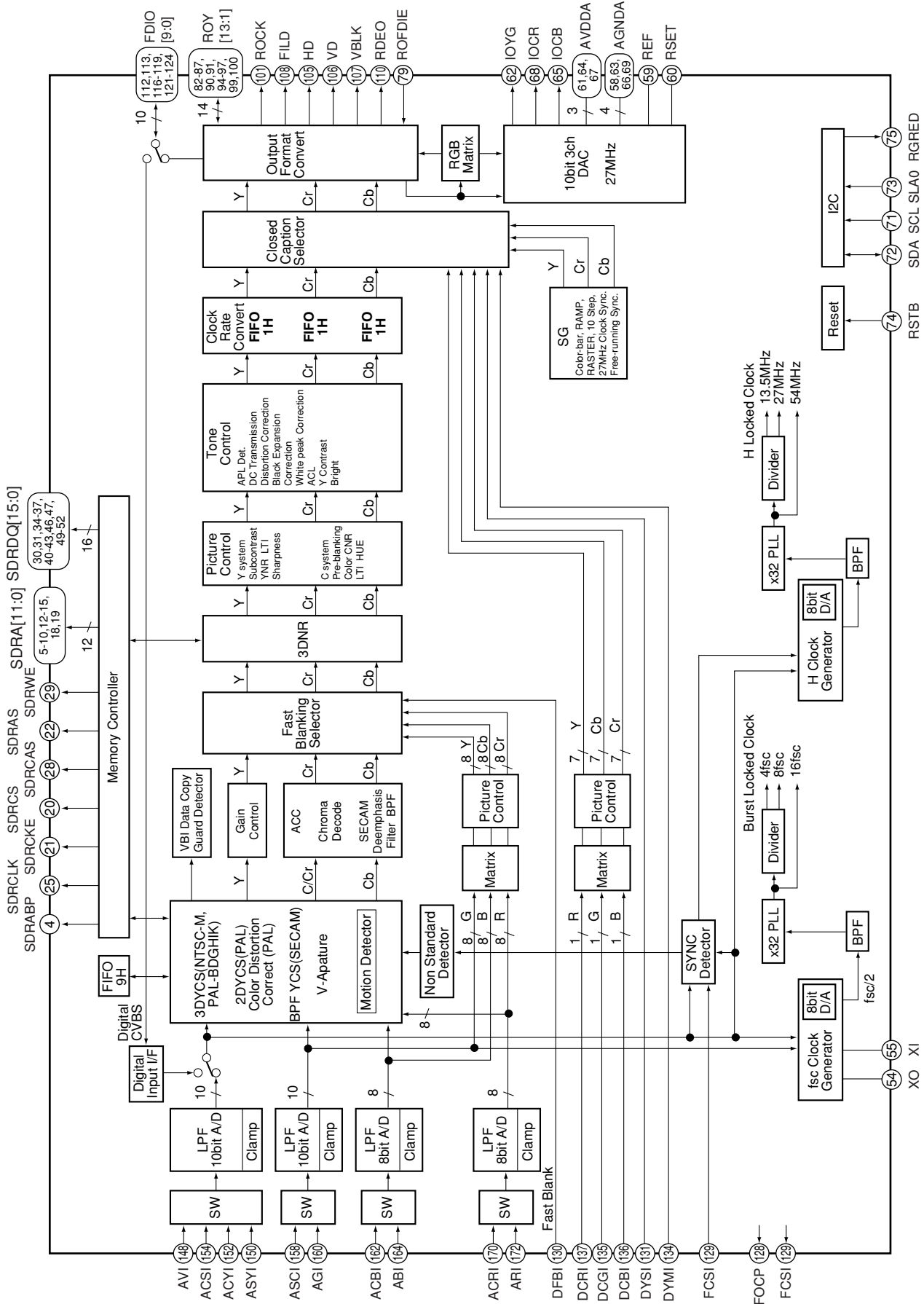
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● Pin Function

No.	Pin Name	I/O	Pin Function
1	DVDD3	–	Digital power supply (3.3V)
2	SCKSET	I	Test mode selection (L: Normal, H: Test mode)
3	TEST	I	Test setting (L: Normal, H: Test mode)
4	SDRABP	O	All bank precharge output for external memory (Active High)
5	SDRA11	O	Address output for external memory
6	SDRA10	O	Address output for external memory
7	SDRA9	O	Address output for external memory
8	SDRA8	O	Address output for external memory
9	SDRA7	O	Address output for external memory
10	SDRA6	O	Address output for external memory
11	DVDD3	–	Digital power supply (3.3V)
12	SDRA5	O	Address output for external memory
13	SDRA4	O	Address output for external memory
14	SDRA3	O	Address output for external memory
15	SDRA2	O	Address output for external memory
16	DVDD1	–	Digital power supply (1.5V)
17	DGND	–	Digital ground
18	SDRA1	O	Address output for external memory
19	SDRA0	O	Address output for external memory
20	SDRCS	O	Chip select output for external memory (Active Low)
21	SDRCKE	O	Clock enable output for external memory (Active High)
22	SDRRAS	O	Row address strobe output for external memory (Active Low)
23	DVDD1	–	Digital power supply (1.5V)
24	DGND	–	Digital ground
25	SDRCLK	O	Clock output for external memory
26	DVDD3	–	Digital power supply (3.3V)
27	DVDD1	–	Digital power supply (1.5V)
28	SDRCAS	O	Column address strobe output for external memory (Active Low)
29	SDRWE	O	Write enable output for external memory (Active Low)
30	SDRDQ7	I/O	Data input/output for external memory
31	SDRDQ8	I/O	Data input/output for external memory
32	DVDD1	–	Digital power supply (1.5V)
33	DGND	–	Digital ground
34	SDRDQ6	I/O	Data input/output for external memory
35	SDRDQ9	I/O	Data input/output for external memory
36	SDRDQ5	I/O	Data input/output for external memory
37	SDRDQ10	I/O	Data input/output for external memory
38	DGND	–	Digital ground
39	DVDD1	–	Digital power supply (1.5V)
40	SDRDQ4	I/O	Data input/output for external memory
41	SDRDQ11	I/O	Data input/output for external memory
42	SDRDQ3	I/O	Data input/output for external memory
43	SDRDQ12	I/O	Data input/output for external memory
44	DVDD3	–	Digital power supply (3.3V)
45	DGND	–	Digital ground
46	SDRDQ2	I/O	Data input/output for external memory
47	SDRDQ13	I/O	Data input/output for external memory
48	DVDD1	–	Digital power supply (1.5V)
49	SDRDQ1	I/O	Data input/output for external memory
50	SDRDQ14	I/O	Data input/output for external memory

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No.	Pin Name	I/O	Pin Function
51	SDRDQ0	I/O	Data input/output for external memory
52	SDRDQ15	I/O	Data input/output for external memory
53	DVDD3	–	Digital power supply (3.3V)
54	XO	O	Reference clock output Connect a 24.576MHz crystal.
55	XI	I	Reference clock input Connect a 24.576MHz crystal.
56	DGND	–	Digital ground
57	DVDD1	–	Digital power supply (1.5V)
58	AGNDA	–	Analog ground for DAC
59	REF	I	External reference input
60	RSET	O	Connect a 620 ohm resistor for external adjustment to AGND
61	AVDDA	–	Analog power supply for DAC (3.3V)
62	IOYG	O	Color-difference component Y / RGB component G output signal
63	AGNDA	–	Analog ground for DAC
64	AVDDA	–	Analog power supply for DAC (3.3V)
65	IOGB	O	Color-difference component Cb / RGB component B output signal
66	AGNDA	–	Analog ground for DAC
67	AVDDA	–	Analog power supply for DAC (3.3V)
68	IOCR	O	Color-difference component Cr / RGB component R output signal
69	AGNDA	–	Analog ground for DAC
70	DVDD1	–	Digital power supply (1.5V)
71	SCL	I	I ² C bus clock input Connect to SCL line of the system.
72	SDA	I/O	I ² C bus data input/output Connect to SDA line of the system.
73	SLA0	I	I ² C bus slave address select input (L: B8h/B9h, H: BAh/BBh)
74	RSTB	I	System reset input (Active Low)
75	RGRED	O	I ² C register read flag output (Active Low)
76	DVDD1	–	Digital power supply (1.5V)
77	FCKM	I	FCLK8 test mode selection (L: Normal, H: Test mode)
78	FCLK8	I/O	Line-lock clock monitor input/output
79	ROFDIE	I	Output enable of the video input/output terminal L: Output terminal Hi-Z, H: Output enable
80	DGND	–	Digital ground
81	DVDD1	–	Digital power supply (1.5V)
82	ROY13	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
83	ROY12	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
84	ROY11	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
85	ROY10	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
86	ROY9	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
87	ROY8	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
88	DVDD3	–	Digital power supply (3.3V)
89	DGND	–	Digital ground
90	ROY7	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
91	ROY6	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
92	DVDD1	–	Digital power supply (1.5V)
93	DGND	–	Digital ground
94	ROY5	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
95	ROY4	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
96	ROY3	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
97	ROY2	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
98	DVDD3	–	Digital power supply (3.3V)
99	ROY1	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
100	ROY0	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output

No.	Pin Name	I/O	Pin Function
101	ROCK	O	Clock for digital ITU-R BT. 656/component output
102	BCLK8	I/O	Line-lock clock monitor input/output
103	DVDD1	–	Digital power supply (1.5V)
104	DGND	–	Digital ground
105	HD	O	Horizontal sync. signal output
106	VD	O	Vertical sync. signal output
107	VBLK	O	V blanking output
108	FILD	O	Field output
109	DVDD3	–	Digital power supply (3.3V)
110	RDEO	O	Effective pixel area output
111	BCKM	I	Test mode selection of BCLK8 pin (L: Normal, H: Test mode)
112	FDIO0	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
113	FDIO1	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
114	DGND	–	Digital ground
115	DVDD1	–	Digital power supply (1.5V)
116	FDIO2	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
117	FDIO3	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
118	FDIO4	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
119	FDIO5	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
120	DVDD3	–	Digital power supply (3.3V)
121	FDIO6	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
122	FDIO7	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
123	FDIO8	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
124	FDIO9	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
125	DVDD1	–	Digital power supply (1.5V)
126	DGND	–	Digital ground
127	FCKQ	I/O	Sampling clock output for digital connection
128	FOCP	I/O	Clamp pulse output for digital connection / Timing output for digital RGB input (VD)
129	FCSI	I/O	Sync sep. signal input / Timing output for RGB input (HD)
130	DFBI	I	Fast blanking signal input for analog RGB input
131	DYSI	I	YS signal input for digital RGB input
132	DVDD3	–	Digital power supply (3.3V)
133	DVDD1	–	Digital power supply (1.5V)
134	DYMI	I	YM signal input for digital RGB input
135	DCGI	I	Digital RGB/G signal input
136	DCBI	I	Digital RGB/B signal input
137	DCRI	I	Digital RGB/R signal input
138	AVDD1	–	Analog power supply (1.5V)
139	ATS1	–	Analog test input Normally, connect to GND.
140	ATS2	–	Analog test input Normally, connect to GND.
141	AVDD3	–	Analog power supply (3.3V)
142	ATS3	–	Analog test input Normally, connect to GND.
143	AGND	–	Analog ground
144	AGND	–	Analog ground
145	AGND	–	Analog ground
146	VCLY	O	ADC1 clamp voltage
147	VCOM1	–	ADC1 common-mode reference voltage
148	AVI	I	ADC1 composite/Y signal input
149	VLPI	–	Analog test output Connect to GND via 0.1μF capacitor.
150	ASYI	I	ADC1 composite/Y signal input

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No.	Pin Name	I/O	Pin Function
151	VRB1	–	ADC1 bottom reference voltage
152	ACYI	I	ADC1 composite/Y signal input
153	VRT1	–	ADC1 top reference voltage
154	ACSI	I	ADC1 composite/Y signal input
155	AVDD3	–	Analog power supply for ADC (3.3V)
156	AVDD3	–	Analog power supply for ADC (3.3V)
157	VRT2	–	ADC2 top reference voltage
158	ASCI	I	ADC2 separate C signal input
159	VRB2	–	ADC2 bottom reference voltage
160	AGI	I	ADC2 RGB component G signal input
161	VCOM2	–	ADC2 common-mode reference voltage
162	ACBI	I	ADC3 color-difference component Cb signal input
163	VRT3	–	ADC3 top reference voltage
164	ABI	I	ADC3 RGB component B signal input
165	VRB3	–	ADC3 bottom reference voltage
166	VCOM3	–	ADC3 common-mode reference voltage
167	AVDD3	–	Analog power supply for ADC (3.3V)
168	AVDD3	–	Analog power supply for ADC (3.3V)
169	VCOM4	–	ADC4 common-mode reference voltage
170	ACRI	I	ADC4 color-difference component Cr signal input
171	VLPF2	–	Analog test output
172	ARI	I	ADC3 RGB component R signal input
173	VRB4	–	ADC4 bottom reference voltage
174	VRT4	–	ADC4 top reference voltage
175	AGND	–	Analog ground
176	AGND	–	Analog ground

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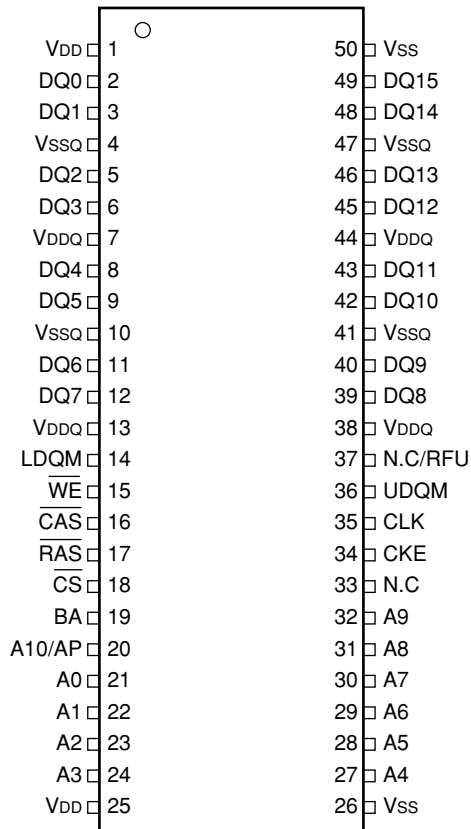
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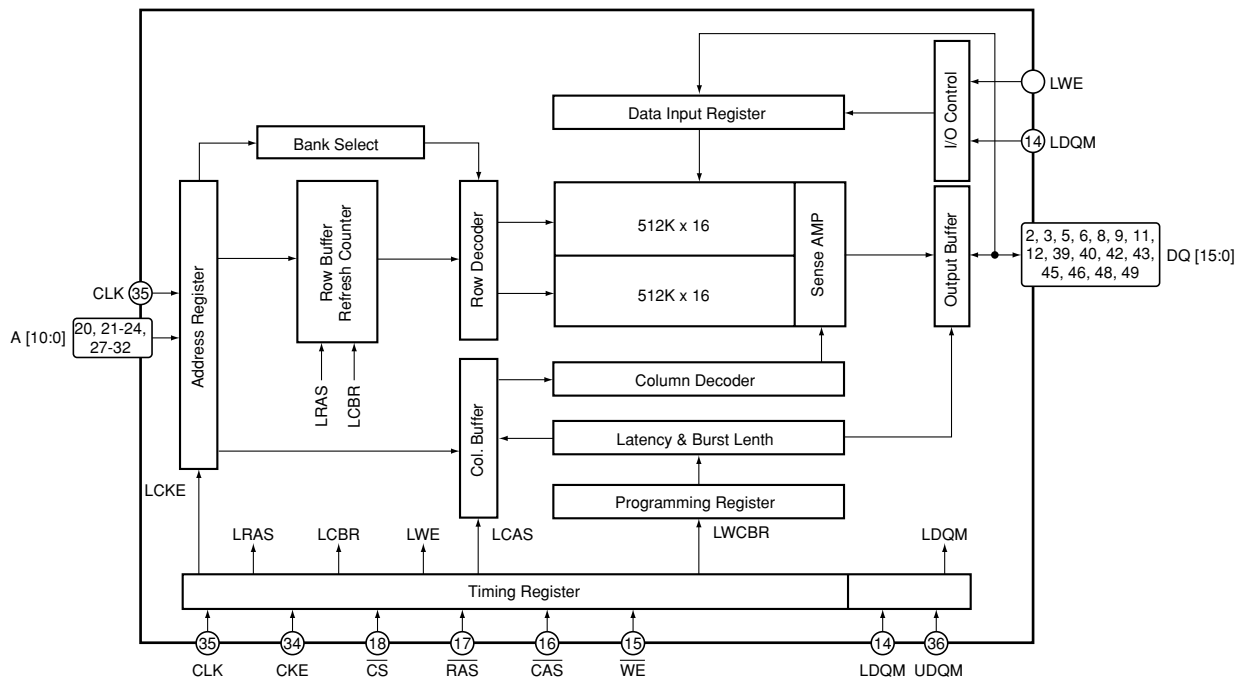
K4S161622H-TC60 (MR MAIN ASSY : IC6002)

• 16M SDRAM (for Main VDEC)

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	V _{DD}	—	Power supply	26	V _{SS}	—	Ground
2	DQ0	I/O	Data input / output	27	A4	I	Address input
3	DQ1	I/O	Data input / output	28	A5	I	Address input
4	V _{SSQ}	—	Ground for data output	29	A6	I	Address input
5	DQ2	I/O	Data input / output	30	A7	I	Address input
6	DQ3	I/O	Data input / output	31	A8	I	Address input
7	V _{DDQ}	—	Power supply for data output	32	A9	I	Address input
8	DQ4	I/O	Data input / output	33	N.C	—	No connection
9	DQ5	I/O	Data input / output	34	CKE	I	Clock enable input
10	V _{SSQ}	—	Ground for data output	35	CLK	I	System clock input
11	DQ6	I/O	Data input / output	36	UDQM	I	Data input / output mask input
12	DQ7	I/O	Data input / output	37	N.C/RFU	—	No connection / Reserved for future use
13	V _{DDQ}	—	Power supply for data output	38	V _{DDQ}	—	Power supply for data output
14	LDQM	I	Data input / output mask input	39	DQ8	I/O	Data input / output
15	\overline{WE}	I	Write enable input	40	DQ9	I/O	Data input / output
16	\overline{CAS}	I	Column address strobe input	41	V _{SSQ}	—	Ground for data output
17	\overline{RAS}	I	Row address strobe input	42	DQ10	I/O	Data input / output
18	\overline{CS}	I	Chip select input	43	DQ11	I/O	Data input / output
19	BA	I	Bank select address input	44	V _{DDQ}	—	Power supply for data output
20	A10/AP	I	Address input	45	DQ12	I/O	Data input / output
21	A0	I	Address input	46	DQ13	I/O	Data input / output
22	A1	I	Address input	47	V _{SSQ}	—	Ground for data output
23	A2	I	Address input	48	DQ14	I/O	Data input / output
24	A3	I	Address input	49	DQ15	I/O	Data input / output
25	V _{DD}	—	Power supply	50	V _{SS}	—	Ground

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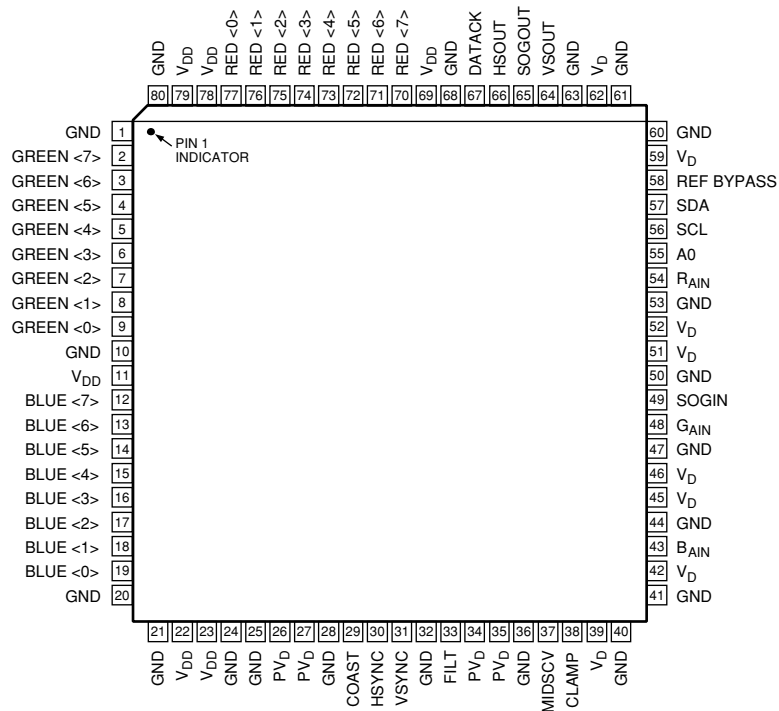
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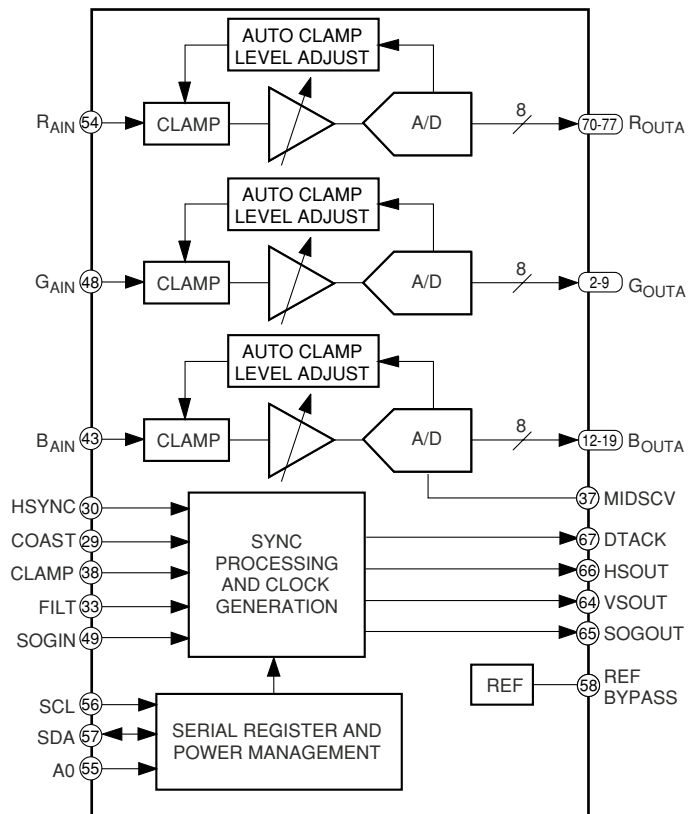
AD9985KSTZ-110 (MR MAIN ASSY : IC6201)

• ADC

● Pin Arrangement (Top view)



● Block Diagram



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● Pin Function

Pin Type	No.	PIN Name	Pin Function
Inputs	54	RAIN	Analog input for converter R
	48	GAIN	Analog input for converter G
	43	BAIN	Analog input for converter B
	30	HSYNC	Horizontal sync input
	31	VSYNC	Vertical sync input
	49	SOGIN	Input for sync-on green
	38	CLAMP	Clamp input (External CLAMP signal)
	29	COAST	PLL COAST signal input
Outputs	70-77	Red [7 : 0]	Outputs of converter red, bit 7 is the MSB
	2-9	Green [7 : 0]	Outputs of converter green, bit 7 is the BSB
	12-19	Blue [7 : 0]	Outputs of converter blue, bit 7 is the BSB
	67	DATAACK	Data output clock
	66	HSOUT	HSYNC output (Phase-aligned with DATAACK)
	64	VSOUT	VSYNC output (Phase-aligned with DATAACK)
	65	SOGOUT	Sync-on-green slicer output
Reference	58	REF BYPASS	Internal reference bypass
	37	MIDSCV	Internal midscale voltage bypass
	33	FILT	Connection for external filter components for internal PLL
Power Supply	39, 42, 45, 46, 51, 52, 59, 62	V _D	Analog power supply
	11, 22, 23, 69, 78, 79	V _{DD}	Output power supply
	26, 27, 34, 35	PV _D	PLL power supply
	1, 10, 20, 21, 24, 25, 28, 32, 36, 40, 41, 44, 47, 50, 53, 60, 61, 63 68, 80	GND	Ground
Control	57	SDA	Serial port data I/O
	56	SCL	Serial port data clock (100 kHz maximum)
	55	A0	Serial port address input 1

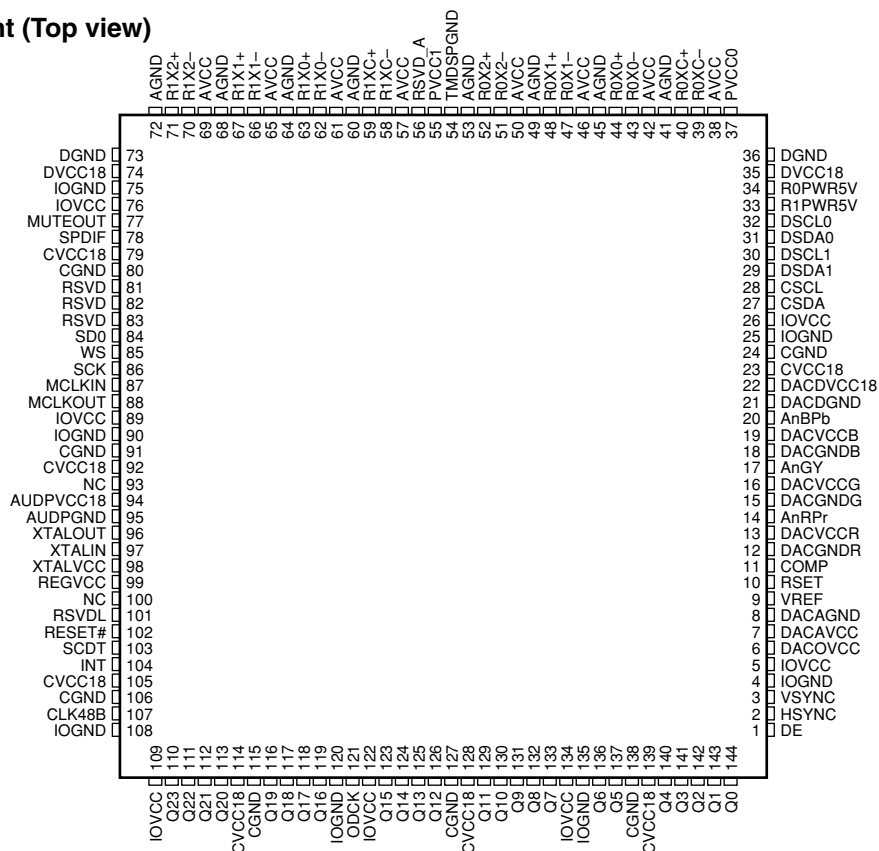
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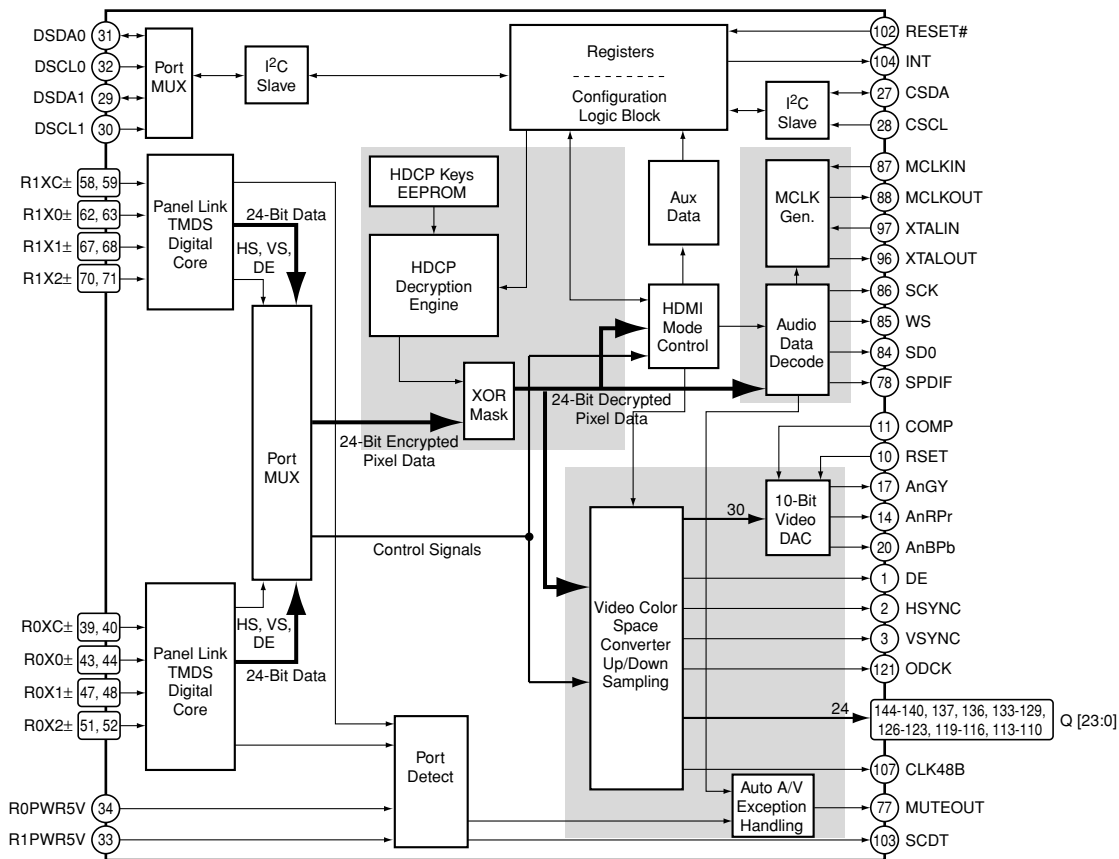
SII9021CTU (MR MAIN ASSY : IC6404)

• HDMI Rx

● Pin Arrangement (Top view)



● Block Diagram



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● Pin Function

No.	Pin Name	I/O	Pin Function
1	DE	O	Data enable
2	HSYNC	O	Horizontal sync output control signal
3	VSYNC	O	Vertical sync output control signal
4	IOGND	–	Input / output pin ground
5	IOVCC	–	Input / output pin VCC
6	DACOVCC	–	DAC output VCC
7	DACAVCC	–	DAC analog VCC
8	DACAGND	–	DAC analog ground
9	VREF	–	–
10	RSET	–	Full scale adjust resistor
11	COMP	–	Compensation
12	DACGNDR	–	DAC red ground
13	DACVCCR	–	DAC red VDD
14	AnRPr	O	Analog video red, Pr output
15	DACGNDG	–	DAC green ground
16	DACVCCG	–	DAC green VDD
17	AnGY	O	Analog video green, Y output
18	DACGNDB	–	DAC blue ground
19	DACVCCB	–	DAC blue VDD
20	AnBPb	O	Analog video blue, Pb output
21	DACDGND	–	DAC digital ground
22	DACDVCC18	–	DAC digital VCC
23	CVCC18	–	Digital logic VCC
24	CGND	–	Digital logic ground
25	IOGND	–	Input / output pin ground
26	IOVCC	–	Input / output pin VCC
27	CSDA	I/O	Configuration I ² C data
28	CSCL	I	Configuration I ² C clock
29	DSDA1	I/O	DDC I ² C data for port 1
30	DSCL1	I	DDC I ² C clock for port 1
31	DSDA0	I/O	DDC I ² C data for port 0
32	DSCL0	I	DDC I ² C clock for port 0
33	R1PWR5V	I	Port 1 transmitter detect
34	R0PWR5V	I	Port 0 transmitter detect
35	DVCC18	–	ACR PLL digital VCC
36	DGND	–	ACR PLL ground
37	PVCC0	–	TMDS port 0 PLL VCC
38	AVCC	–	TMDS analog VCC
39	R0XC–	I	TMDS input clock
40	R0XC+	I	TMDS input clock
41	AGND	–	TMDS analog ground
42	AVCC	–	TMDS analog VCC
43	R0X0–	I	TMDS input data
44	R0X0+	I	TMDS input data
45	AGND	–	TMDS analog ground
46	AVCC	–	TMDS analog VCC
47	R0X1–	I	TMDS input data
48	R0X1+	I	TMDS input data
49	AGND	–	TMDS analog ground
50	AVCC	–	TMDS analog VCC

No.	Pin Name	I/O	Pin Function
51	R0X2-	I	TMDS input data
52	R0X2+	I	TMDS input data
53	AGND	-	TMDS analog ground
54	TMDSPGND	-	TMDS PLL ground
55	PVCC1	-	TMDS port 1 PLL VCC
56	RSVD_A	-	Reserved pin
57	AVCC	-	TMDS analog VCC
58	R1XC-	I	TMDS input clock
59	R1XC+	I	TMDS input clock
60	AGND	-	TMDS analog ground
61	AVCC	-	TMDS analog VCC
62	R1X0-	I	TMDS input data
63	R1X0+	I	TMDS input data
64	AGND	-	TMDS analog ground
65	AVCC	-	TMDS analog VCC
66	R1X1-	I	TMDS input data
67	R1X1+	I	TMDS input data
68	AGND	-	TMDS analog ground
69	AVCC	-	TMDS analog VCC
70	R1X2-	I	TMDS input data
71	R1X2+	I	TMDS input data
72	AGND	-	TMDS analog ground
73	DGND	-	ACR PLL ground
74	DVCC18	-	ACR PLL digital VCC
75	IOGND	-	Input / output pin ground
76	IOVCC	-	Input / output pin VCC
77	MUTEOUT	O	Mute audio output
78	SPDIF	O	S/PDIF audio output
79	CVCC18	-	Digital logic VCC
80	CGND	-	Digital logic ground
81	RSVD	O	-
82	RSVD	O	-
83	RSVD	O	-
84	SD0	O	I ² S serial data output
85	WS	O	I ² S word select output
86	SCK	O	I ² S serial clock output
87	MCLKIN	I	Audio master clock input reference
88	MCLKOUT	O	Audio master clock output
89	IOVCC	-	Input / output pin VCC
90	IOGND	-	Input / output pin ground
91	CGND	-	Digital logic ground
92	CVCC18	-	Digital logic VCC
93	NC	-	No connection
94	AUDPVCC18	-	ACR PLL VCC
95	AUDPGND	-	ACR PLL ground
96	XTALOUT	O	Crystal clock output
97	XTALIN	I	Crystal clock input
98	XTALVCC	-	ACR PLL crystal input VCC
99	REGVCC	-	ACR PLL regulator VCC
100	NC	-	No connection

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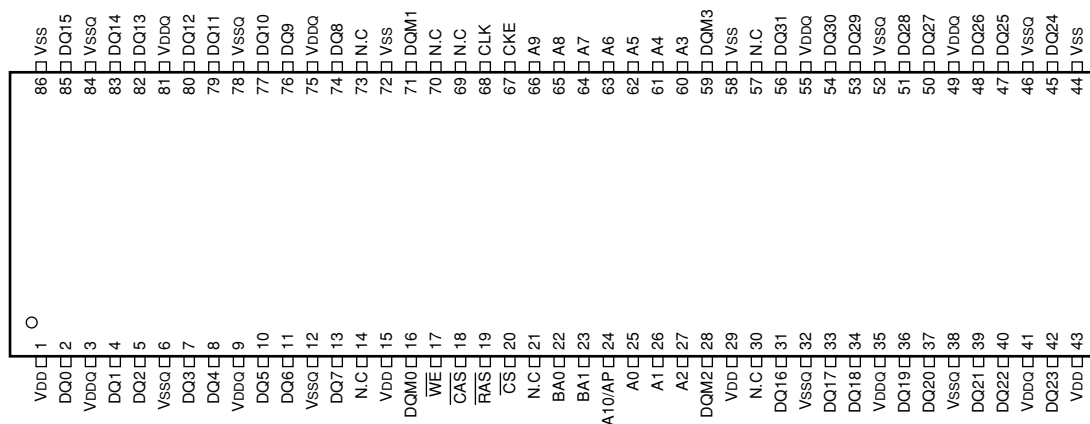
No.	Pin Name	I/O	Pin Function
101	RSVDL	I	Reserved, must be tied LOW
102	RESET#	I	Reset pin, active LOW
103	SCDT	O	Indicates active video at HDMI input port
104	INT	O	Interrupt output
105	CVCC18	–	Digital logic VCC
106	CGND	–	Digital logic ground
107	CLK48B	I/O	Data bus latch enable
108	IOGND	–	Input / output pin ground
109	IOVCC	–	Input / output pin VCC
110	Q23	O	24-bit output pixel data bus
111	Q22	O	24-bit output pixel data bus
112	Q21	O	24-bit output pixel data bus
113	Q20	O	24-bit output pixel data bus
114	CVCC18	–	Digital logic VCC
115	CGND	–	Digital logic ground
116	Q19	O	24-bit output pixel data bus
117	Q18	O	24-bit output pixel data bus
118	Q17	O	24-bit output pixel data bus
119	Q16	O	24-bit output pixel data bus
120	IOGND	–	Input / output pin ground
121	ODCK	O	Output data clock
122	IOVCC	–	Input / output pin VCC
123	Q15	O	24-bit output pixel data bus
124	Q14	O	24-bit output pixel data bus
125	Q13	O	24-bit output pixel data bus
126	Q12	O	24-bit output pixel data bus
127	CGND	–	Digital logic ground
128	CVCC18	–	Digital logic VCC
129	Q11	O	24-bit output pixel data bus
130	Q10	O	24-bit output pixel data bus
131	Q9	O	24-bit output pixel data bus
132	Q8	O	24-bit output pixel data bus
133	Q7	O	24-bit output pixel data bus
134	IOVCC	–	Input / output pin VCC
135	IOGND	–	Input / output pin ground
136	Q6	O	24-bit output pixel data bus
137	Q5	O	24-bit output pixel data bus
138	CGND	–	Digital logic ground
139	CVCC18	–	Digital logic VCC
140	Q4	O	24-bit output pixel data bus
141	Q3	O	24-bit output pixel data bus
142	Q2	O	24-bit output pixel data bus
143	Q1	O	24-bit output pixel data bus
144	Q0	O	24-bit output pixel data bus

F

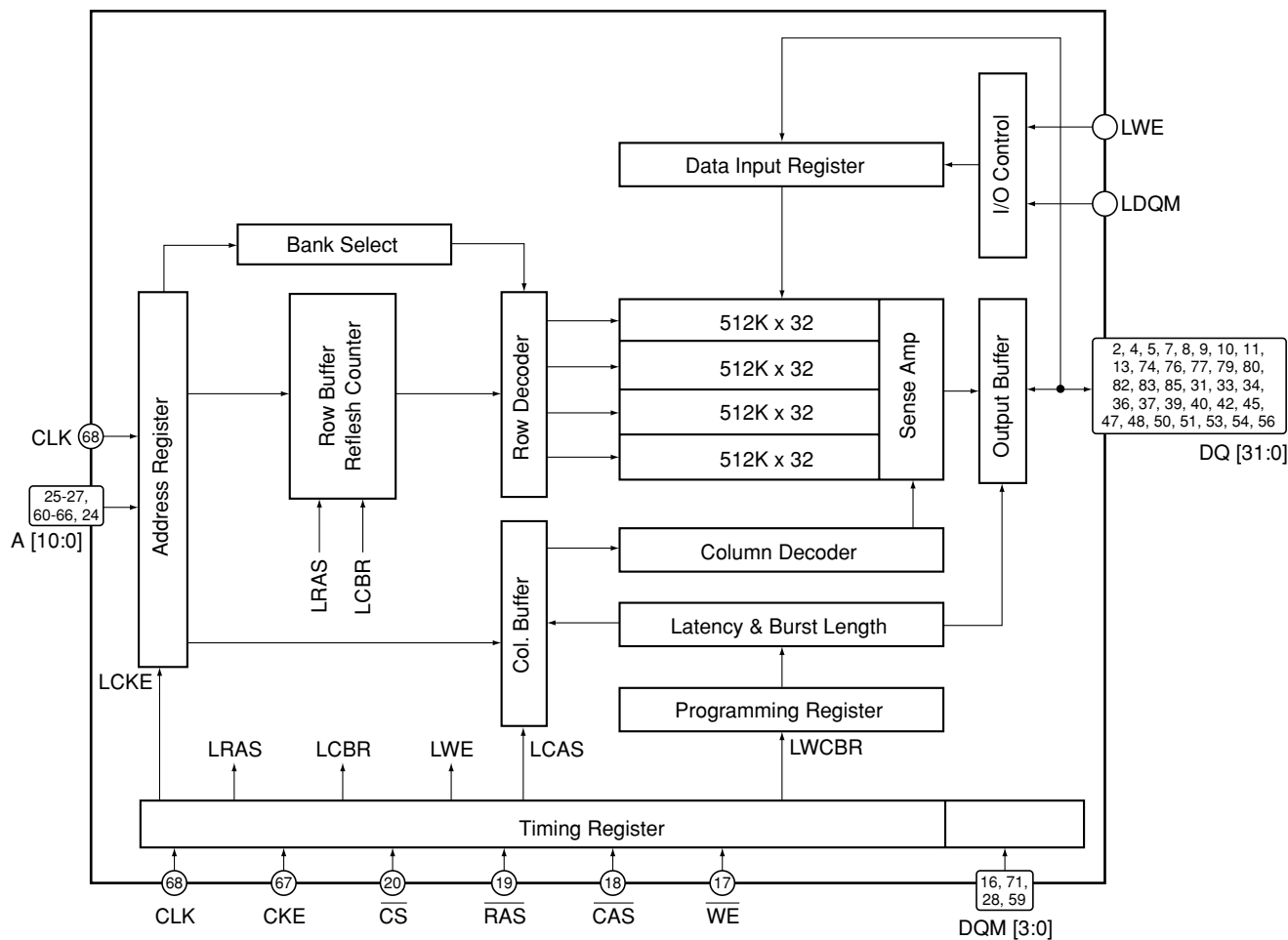
K4S643232H-TC60 (MR MAIN ASSY : IC6801, IC6802)

• 64M SDRAM (for Silvia)

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

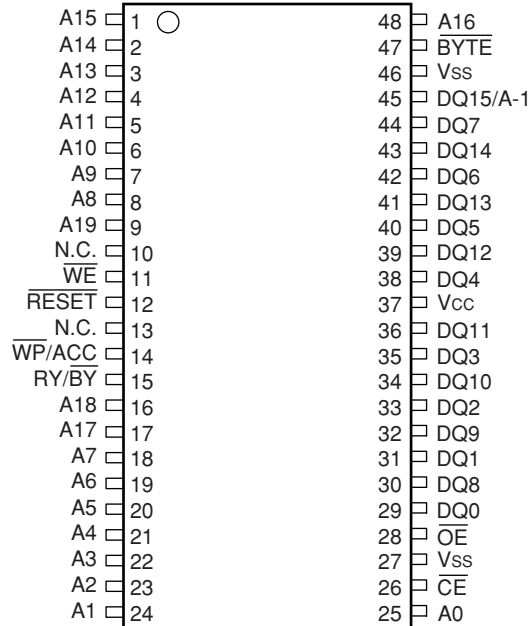
No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	V _{DD}	–	Power supply	44	V _{SS}	–	Ground
2	DQ0	I/O	Data input / output	45	DQ24	I/O	Data input / output
3	V _{DDQ}	–	Power supply for data output	46	V _{SSQ}	–	Ground for data output
4	DQ1	I/O	Data input / output	47	DQ25	I/O	Data input / output
5	DQ2	I/O	Data input / output	48	DQ26	I/O	Data input / output
6	V _{SSQ}	–	Ground for data output	49	V _{DDQ}	–	Power supply for data output
7	DQ3	I/O	Data input / output	50	DQ27	I/O	Data input / output
8	DQ4	I/O	Data input / output	51	DQ28	I/O	Data input / output
9	V _{DDQ}	–	Power supply for data output	52	V _{SSQ}	–	Ground for data output
10	DQ5	I/O	Data input / output	53	DQ29	I/O	Data input / output
11	DQ6	I/O	Data input / output	54	DQ30	I/O	Data input / output
12	V _{SSQ}	–	Ground for data output	55	V _{DDQ}	–	Power supply for data output
13	DQ7	I/O	Data input / output	56	DQ31	I/O	Data input / output
14	N.C	–	No connection	57	N.C	–	No connection
15	V _{DD}	–	Power supply	58	V _{SS}	–	Ground
16	DQM0	I	Data input / output mask input	59	DQM3	I	Data input / output mask input
17	WE	I	Write enable input	60	A3	I	Address input
18	CAS	I	Column address strobe input	61	A4	I	Address input
19	RAS	I	Row address strobe input	62	A5	I	Address input
20	CS	I	Chip select input	63	A6	I	Address input
21	N.C	–	No connection	64	A7	I	Address input
22	BA0	I	Bank select address input	65	A8	I	Address input
23	BA1	I	Bank select address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable input
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	N.C	–	No connection
27	A2	I	Address input	70	N.C	–	No connection
28	DQM2	I	Data input / output mask input	71	DQM1	I	Data input / output mask input
29	V _{DD}	–	Power supply	72	V _{SS}	–	Ground
30	N.C	–	No connection	73	N.C	–	No connection
31	DQ16	I/O	Data input / output	74	DQ8	I/O	Data input / output
32	V _{SSQ}	–	Ground for data output	75	V _{DDQ}	–	Power supply for data output
33	DQ17	I/O	Data input / output	76	DQ9	I/O	Data input / output
34	DQ18	I/O	Data input / output	77	DQ10	I/O	Data input / output
35	V _{DDQ}	–	Power supply for data output	78	V _{SSQ}	–	Ground for data output
36	DQ19	I/O	Data input / output	79	DQ11	I/O	Data input / output
37	DQ20	I/O	Data input / output	80	DQ12	I/O	Data input / output
38	V _{SSQ}	–	Ground for data output	81	V _{DDQ}	–	Power supply for data output
39	DQ21	I/O	Data input / output	82	DQ13	I/O	Data input / output
40	DQ22	I/O	Data input / output	83	DQ14	I/O	Data input / output
41	V _{DDQ}	–	Power supply for data output	84	V _{SSQ}	–	Ground for data output
42	DQ23	I/O	Data input / output	85	DQ15	I/O	Data input / output
43	V _{DD}	–	Power supply	86	V _{SS}	–	Ground

F

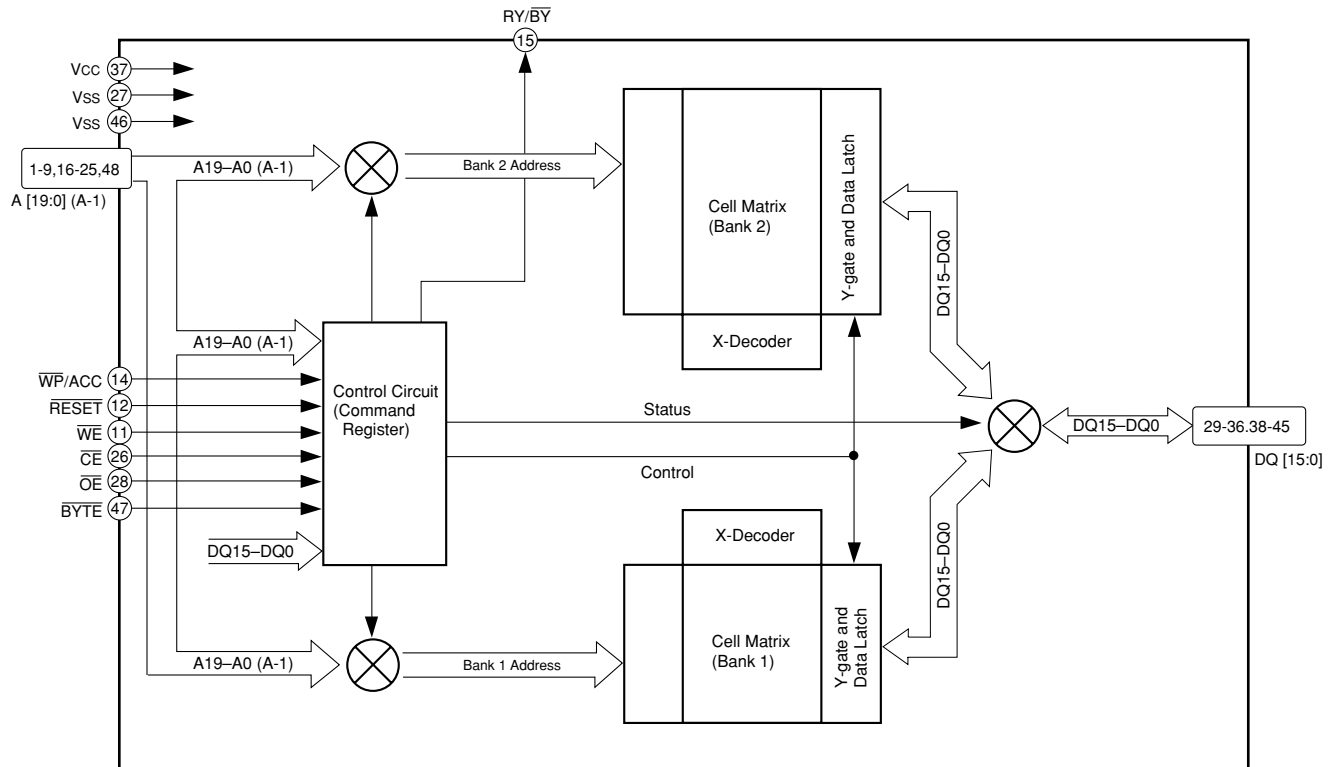
■ MBM29DL162TE70TN (MR MAIN ASSY : IC5207, IC7002)

• 16M Flash for Carrera MANTA

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

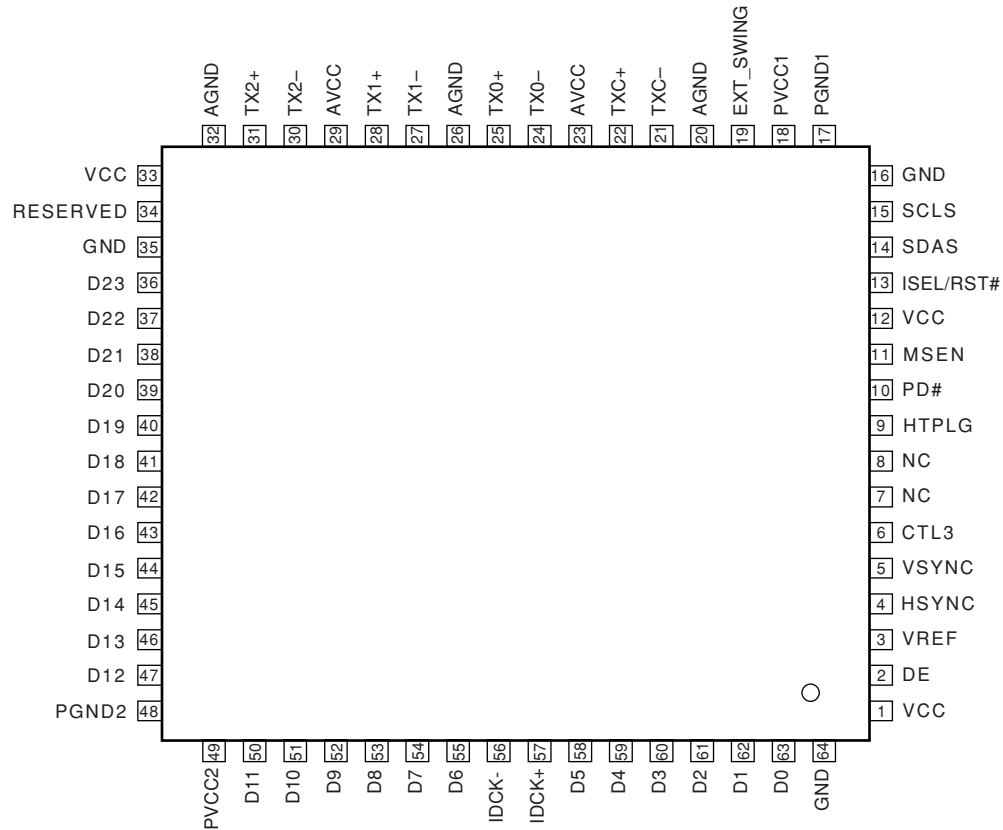
No.	Pin Name	I/O	Pin Function
1	A15	I	Address input
2	A14	I	Address input
3	A13	I	Address input
4	A12	I	Address input
5	A11	I	Address input
6	A10	I	Address input
7	A9	I	Address input
8	A8	I	Address input
9	A19	I	Address input
10	N.C.	I	No connection
11	\overline{WE}	I	Write enable input
12	\overline{RESET}	I	Hardware reset
13	N.C.	—	No connection
14	\overline{WP}/ACC	I	Hardware write protect / Acceleration
15	RY/\overline{BY}	O	Ready / Busy output
16	A18	I	Address input
17	A17	I	Address input
18	A7	I	Address input
19	A6	I	Address input
20	A5	I	Address input
21	A4	I	Address input
22	A3	I	Address input
23	A2	I	Address input
24	A1	I	Address input
25	A0	I	Address input
26	\overline{CE}	I	Chip enable input
27	V _{ss}	—	Ground
28	\overline{OE}	I	Output enable input
29	DQ0	I/O	Data input / output
30	DQ8	I/O	Data input / output
31	DQ1	I/O	Data input / output
32	DQ9	I/O	Data input / output
33	DQ2	I/O	Data input / output
34	DQ10	I/O	Data input / output
35	DQ3	I/O	Data input / output
36	DQ11	I/O	Data input / output
37	V _{cc}	—	Power supply
38	DQ4	I/O	Data input / output
39	DQ12	I/O	Data input / output
40	DQ5	I/O	Data input / output
41	DQ13	I/O	Data input / output
42	DQ6	I/O	Data input / output
43	DQ14	I/O	Data input / output
44	DQ7	I/O	Data input / output
45	DQ15/A-1	I/O	Data input / output / Address input
46	V _{ss}	—	Ground
47	\overline{BYTE}	I	Selects 8-bit or 16-bit mode
48	A16	I	Address input

F

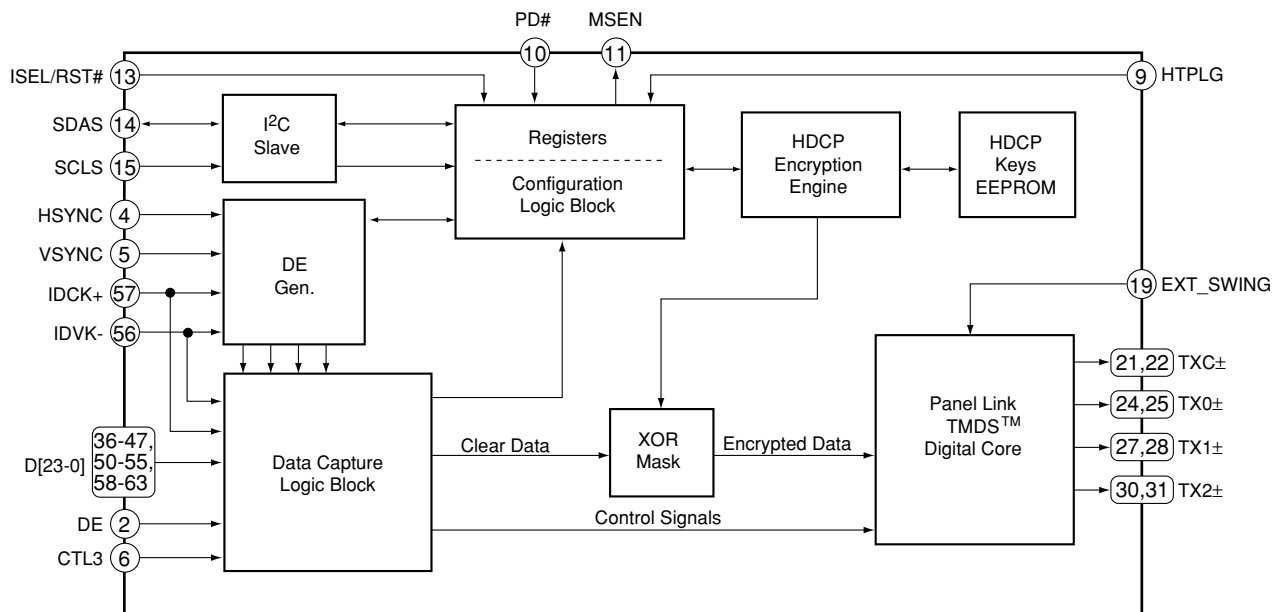
SII170BCLG64 (MR MAIN ASSY : IC7202)

• DVI Tx

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

No.	Pin Name	I/O	Pin Function
1	VCC	–	Digital power supply (3.3V)
2	DE	I	Data enable
3	VREF	I	3.3V fixed
4	HSYNC	I	Horizontal sync. control signal input
5	VSYNC	I	Vertical sync. control signal input
6	CTL3	I	External CTL3 input
7	NC	–	No connection
8	NC	–	No connection
9	HTPLG	I	Monitor charge input
10	PD#	I	Power down input (Active low)
11	MSEN	O	Monitor sense output (open-collector output)
12	VCC	–	Digital power supply (3.3V)
13	ISEL/RST#	I	I2C interface selecting input High: I2C interface is active
14	SDAS	I/O	DDC I2C data input/output
15	SCLS	I	DDC I2C clock input
16	GND	–	Digital ground
17	PGND1	–	PLL analog ground
18	PVCC1	–	Analog power supply for PLL of primary side (3.3V)
19	EXT_SWING	I	Voltage regulation adjustment
20	AGND	–	Analog ground
21	TXC–	O	Differential signal clock output of TMDS Low voltage
22	TXC+	O	Differential signal clock output of TMDS Low voltage
23	AVCC	–	Analog power supply (3.3V)
24	TX0–	O	Differential signal clock output of TMDS Low voltage
25	TX0+	O	Differential signal clock output of TMDS Low voltage
26	AGND	–	Analog ground
27	TX1–	O	Differential signal clock output of TMDS Low voltage
28	TX1+	O	Differential signal clock output of TMDS Low voltage
29	AVCC	–	Analog power supply (3.3V)
30	TX2–	O	Differential signal clock output of TMDS Low voltage
31	TX2+	O	Differential signal clock output of TMDS Low voltage
32	AGND	–	Analog ground
33	VCC	–	Digital power supply (3.3V)
34	RESERVED	I	Reserved pin for Silicon Image Normally, fixed to low.
35	GND	–	Digital ground
36	D23	I	24-bit pixel bus input
37	D22	I	24-bit pixel bus input
38	D21	I	24-bit pixel bus input
39	D20	I	24-bit pixel bus input
40	D19	I	24-bit pixel bus input

F

No.	Pin Name	I/O	Pin Function
41	D18	I	24-bit pixel bus input
42	D17	I	24-bit pixel bus input
43	D16	I	24-bit pixel bus input
44	D15	I	24-bit pixel bus input
45	D14	I	24-bit pixel bus input
46	D13	I	24-bit pixel bus input
47	D12	I	24-bit pixel bus input
48	PGND2	–	PLL analog ground
49	PVCC2	–	Analog power supply for filter PLL (3.3V)
50	D11	I	24-bit / 12-bit pixel bus input
51	D10	I	24-bit / 12-bit pixel bus input
52	D9	I	24-bit / 12-bit pixel bus input
53	D8	I	24-bit / 12-bit pixel bus input
54	D7	I	24-bit / 12-bit pixel bus input
55	D6	I	24-bit / 12-bit pixel bus input
56	IDCK–	I	Data clock - input
57	IDCK+	I	Data clock + input
58	D5	I	24-bit / 12-bit pixel bus input
59	D4	I	24-bit / 12-bit pixel bus input
60	D3	I	24-bit / 12-bit pixel bus input
61	D2	I	24-bit / 12-bit pixel bus input
62	D1	I	24-bit / 12-bit pixel bus input
63	D0	I	24-bit / 12-bit pixel bus input
64	GND	–	Digital ground

A ■ **AXY1117 (MR MAIN ASSY: U4201)**

• 3 Outputs DD Control Unit

● **Pin Arrangement**

■

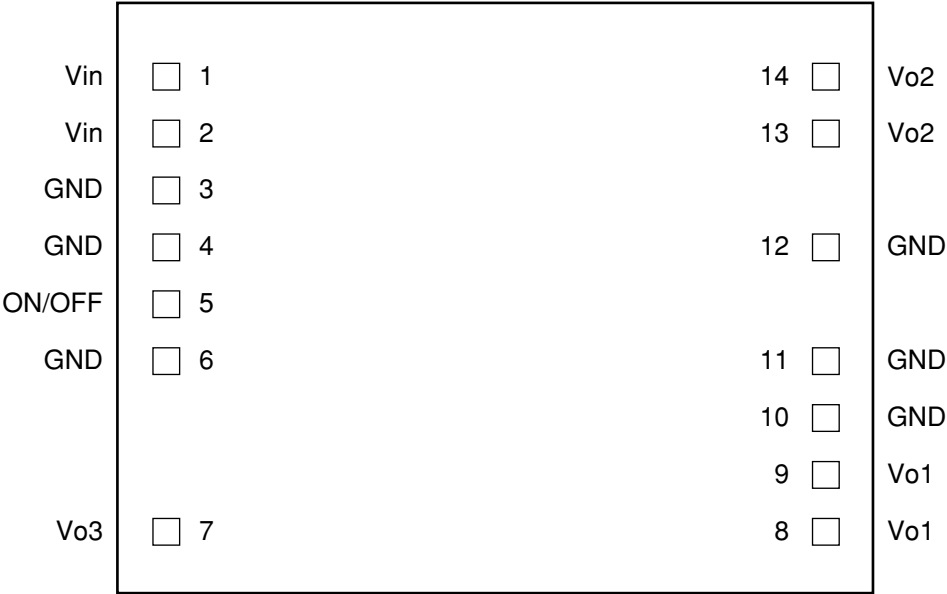
B

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C

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D



D

● **Pin Function**

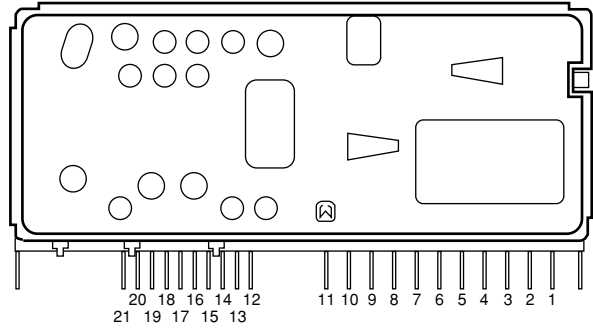
No.	Pin Name	Pin Function
1	Vin	Input
2	Vin	
3	GND	Ground for input side
4	GND	
5	ON/OFF	Output ON/OFF
6	GND	Ground for output side
7	Vo3	1.8V output
8	Vo1	3.3V output
9	Vo1	3.3V output
10	GND	Ground for output side
11	GND	
12	GND	
13	Vo2	1.2V output
14	Vo2	1.2V output

F

■ AXF1130 (MR MAIN ASSY : U4401)

• Front End

● Pin Arrangement



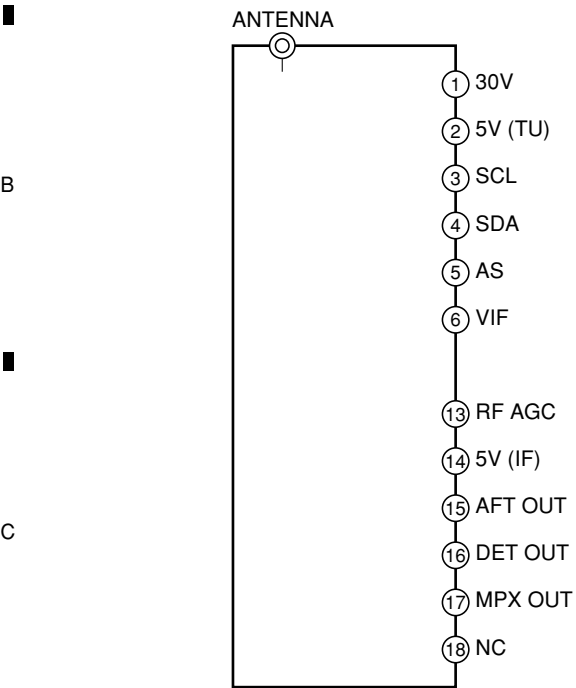
● Pin Function

No.	Pin Name	Pin Function
1	AGC	AGC (4.0V gain max.)
2	TU	Power supply for tuner
3	ADRS	Terminal for I ² C bus control
4	SCL	
5	SDA	
6	NC	No connection
7	V SUPPLY	5.0V
8	IF SW	0V/5.0V
9	BTL	30.0V
10	NC	No connection
11	IF1	IF
12	NC	No connection
13	BV	5.0V
14	AUDIO OUT	Audio output
15	GND	Ground
16	AFT	AFT output
17	AGC OUT	AGC output
18	VIDEO OUT	Video output
19	NC	No connection
20	GND	Ground
21	NC	No connection

A

AXF1148 (MR MAIN ASSY : U4402)
• Front End

● Pin Arrangement



● Pin Function

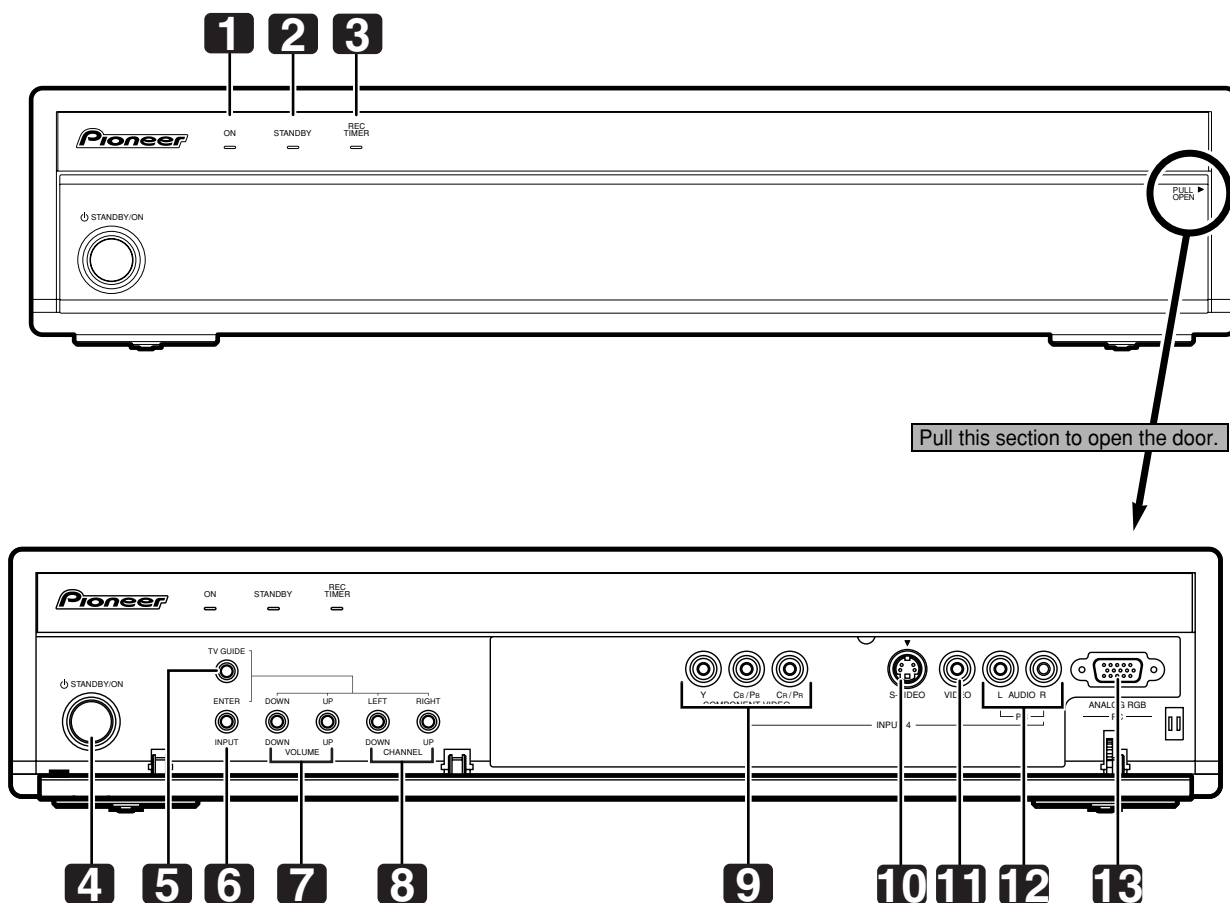
D

No.	Pin Name	Pin Function
1	30V	Power supply for 30V
2	5V (TU)	Power supply for tuner
3	SCL	Terminal for CH selection serial data
4	SDA	
5	AS	Address selection
6	VIF	VIF output
13	RF AGC	RF AGC terminal
14	5V (IF)	Power supply for IF
15	AFT OUT	Analog AFT output
16	DET OUT	VIDEO output (Typical = 1.0Vp-p)
17	MPX OUT	MPX output
18	NC	No connection

E

8. PANEL FACILITIES

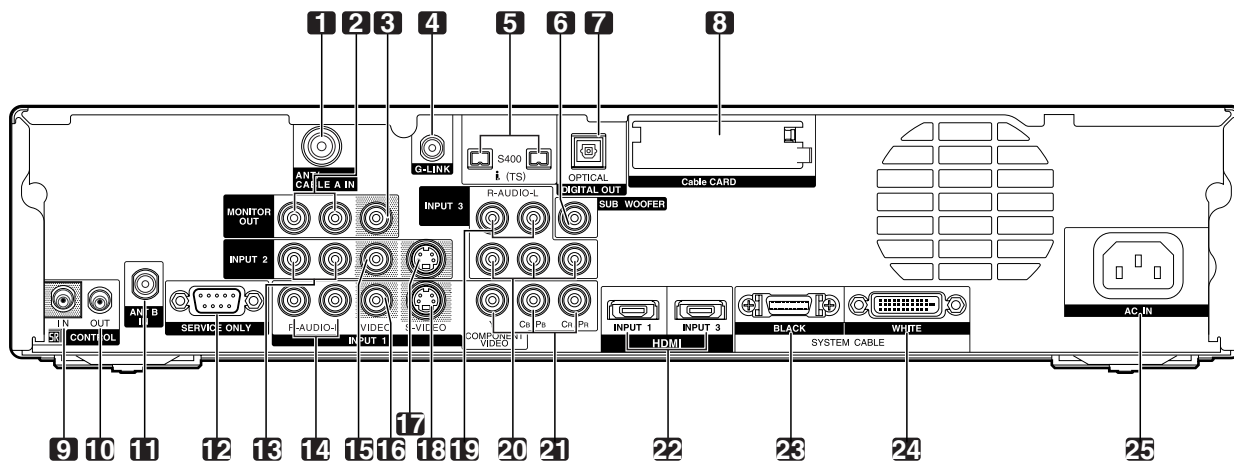
■ Front view



- 1 POWER ON indicator
- 2 STANDBY indicator
- 3 REC TIMER indicator
- 4 **STANDBY/ON** button
- 5 **TV GUIDE** button*
- 6 **INPUT** button (**ENTER** button*)
- 7 **VOLUME UP/DOWN** buttons (**UP/DOWN** buttons*)
- 8 **CHANNEL UP/DOWN** buttons (**LEFT/RIGHT** buttons*)

- 9 INPUT 4 terminals
(COMPONENT VIDEO: Y, CB/PB, CR/PR)
 - 10 INPUT 4 terminal (S-VIDEO)
 - 11 INPUT 4 terminal (VIDEO)
 - 12 INPUT 4/PC terminals (AUDIO)
 - 13 PC INPUT terminal (ANALOG RGB)
- The buttons with asterisks (*) can operate the TV Guide On Screen™ system.

Rear view

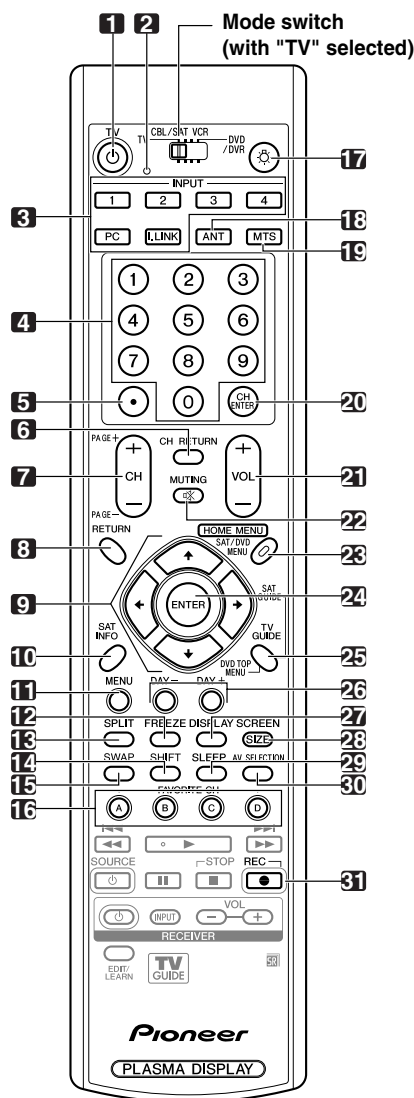


- 1 ANT/CABLE A IN terminal
- 2 MONITOR OUT terminals (AUDIO)
- 3 MONITOR OUT terminal (VIDEO)
- 4 G-LINK terminal
- 5 i.LINK terminals
- 6 SUB WOOFER terminal
- 7 DIGITAL OUT terminal (OPTICAL)
- 8 CableCARD™ slot
- 9 CONTROL IN terminal
- 10 CONTROL OUT terminal
- 11 ANT B IN terminal
- 12 RS-232C terminal (used for factory setup)
- 13 INPUT 2 terminals (AUDIO)
- 14 INPUT 1 terminals (AUDIO)

- 15 INPUT 2 terminal (VIDEO)
- 16 INPUT 1 terminal (VIDEO)
- 17 INPUT 2 terminal (S-VIDEO)
- 18 INPUT 1 terminal (S-VIDEO)
- 19 INPUT 3 terminals (AUDIO)
- 20 INPUT 3 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR)
- 21 INPUT 1 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR)
- 22 HDMI terminals (INPUT1/INPUT3)
- 23 SYSTEM CABLE terminal (BLACK)
- 24 SYSTEM CABLE terminal (WHITE)
- 25 AC IN terminal

■ Remote control unit

This section describes the functions of the buttons available when the mode switch has been set to TV.



- 1 **TV** : Turns on the power to the Plasma Display or places it into standby mode.
- 2 Transmission confirmation LED
- 3 **INPUT**: Selects an input source of the Plasma Display. (INPUT 1, INPUT 2, INPUT 3, INPUT 4, PC, i.LINK)
- 4 **0 - 9**: Selects the channel.
- 5 **• (dot)**: Enters a dot.
- 6 **CH RETURN**: Returns to the previous channel. This button is disabled while the TV Guide On Screen™ system is displayed.
- 7 **CH +/-**: Selects the channel.
PAGE +/- (for the TV Guide On Screen™ system): Scrolls the program listing screen vertically.
- 8 **RETURN**: Returns to the previous menu screen.
- 9 **↑/↓/←/→**: Selects a desired item on the menu screen.

- 10 **INFO**: Displays a channel banner when a TV program is being watched.
When the TV Guide On Screen™ system is in operation, displays information about the currently highlighted channel (if available).
- 11 **MENU**: Displays a panel menu in the TV Guide On Screen™ system.
- 12 **FREEZE**: Freezes a frame from a moving image. Press again to cancel the function.
- 13 **SPLIT**: Switches the screen mode among 2-screen, picture-in-picture, and single-screen.
- 14 **SHIFT**: Moves the location of the small screen when in the picture-in-picture mode.
- 15 **SWAP**: Switches between the two screens when in the 2-screen or picture-in-picture mode.
- 16 **FAVORITE CH (A, B, C, D)**:
Selects any of the four preset channels.
While watching, you can toggle the set channels by pressing **A**, **B**, **C** and **D**.
- 17 : When pressed, all buttons on the remote control unit will light. The lighting will turn off if no operations are performed within about 5 seconds.
This button is used for performing operations in dark places.
- 18 **ANT**: Selects the antenna (A, B).
- 19 **MTS**: Selects the MTS/SAP.
- 20 **CH ENTER**: Executes a channel number.
- 21 **VOL +/-**: Sets the volume.
- 22 **MUTING**: Mutes the sound.
- 23 **HOME MENU**: Displays the Home Menu screen.
- 24 **ENTER**: Executes a command.
- 25 **TV GUIDE**: Displays the TV Guide On Screen™ system.
- 26 **DAY +/-**: Jumps to the next or previous day of program listings in the TV Guide On Screen™ Listing service.
- 27 **DISPLAY**: Displays the channel information.
- 28 **SCREEN SIZE**: Selects the screen size.
- 29 **SLEEP**: Sets the sleep timer.
- 30 **AV SELECTION**: Selects audio and video settings. (AV mode: STANDARD, DYNAMIC, MOVIE, GAME, USER. PC mode: STANDARD, USER.)
- 31 **(REC)**: When using the TV Guide On Screen™ System, starts recording with a connected VCR or D-VHS recorder.

A ■ **Cleaning**



• Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools	Remark
Fans	Cleaning paper : GED-008	Refer to "2.3 EXTERIOR SECTION" , "7.1.2 DISASSEMBLY SECTION".

B

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C

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D

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E

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F

Service Manual



PDP-S35

ORDER NO.
RRV3233

SPEAKER SYSTEM

PDP-S35 XTW/UC

65S

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

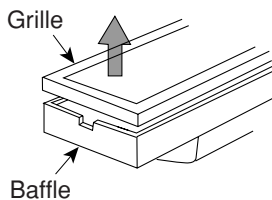
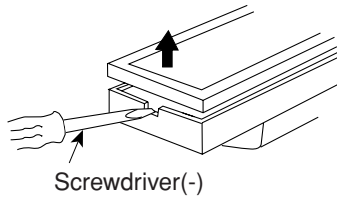
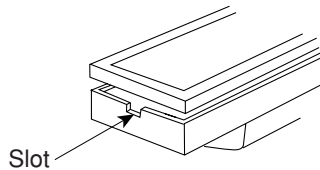
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

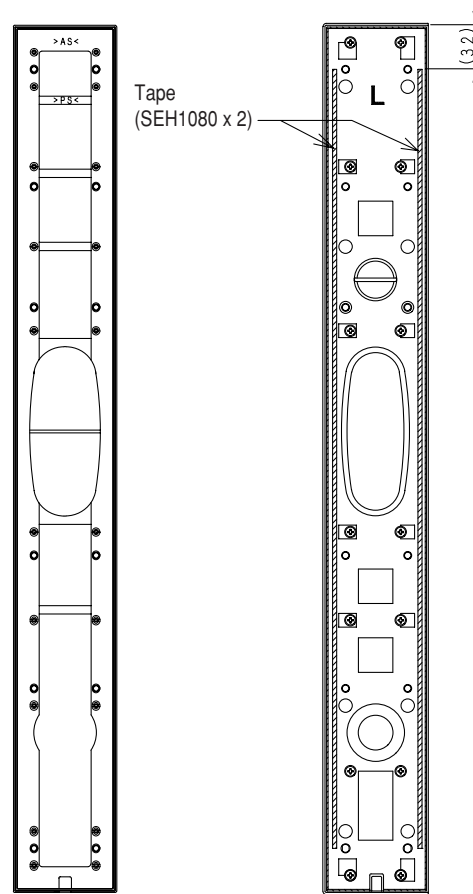
FOR PRECAUTION OF REASSEMBLY AND DISASSEMBLY

- The grille is attached to the baffle using double-sided self-adhesive tape. To avoid damaging the cabinet, work with the speaker on top of a blanket or similar, face the grille upward. There is slot in the lower part of the speaker. Insert a screwdriver(-) into slot and push up detach the lower part. Taking care not to damage the grille and baffle, lift the grille a little bit at a time with hand. When reattaching the grille, use double-sided self-adhesive tape in the locations shown in the diagram and press the grille assy into place.
- The grille is fixed using boss and double-sided self-adhesive tape(The tape is in the locations indicated in the diagram below). Do not use a dryer to heat the self-adhesive tape when removing the grille.
- The woofer is attached to the baffle by 4 internal screws. To detach it, first remove the baffle from cabinet. Then unfasten those screws. When attaching it, face its plus terminal downward.
- The tweeter is attached to the baffle by 2 internal screws. To detach it, first remove the baffle from cabinet. Then unfasten those screws. When attaching it, face its plus terminal rightward.

GRILLE



LOCATIONS TO FIX DOUBLE-SIDED SELF-ADHESIVE TAPE



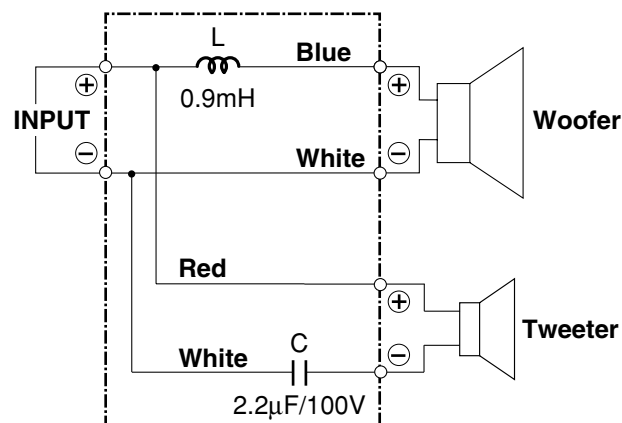
PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 ● The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
 Therefore, when replacing, be sure to use parts of identical designation.

				For Packing			
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP		Cabinet Assy	SXG1102			Gasket Set	SME3685
NSP		└ Insert Nut M5	SBN1062	NSP		└ Gasket	SEC1994
NSP		└ Cabinet	SNK2907			└ Polyethylene Bag S2	SHL1437
NSP		Baffle R	SNK2920				
NSP		Baffle L	SNK2919	NSP		Instruction Manual Set	SME3688
						└ Polyethylene Bag S2	SHL1437
						└ Owner's Manual	SRD1295
						(English, Spanish, French)	
		Grille Ass'y	SMG1855	NSP		Bracket Assy Set	SME3689
NSP		└ Grille Cloth	SAS1599			└ Case	SHA2516
NSP		└ Felt	SED1128			└ Case	SHA2517
NSP		└ Felt	SED1129			└ Protection Sheet S1	SHC1832
NSP		└ Grille Frame	SMH1112			└ Spacer	SHB1173
NSP		└ Cosmetic Frame	SNK2908				
		Network Ass'y	SWN1756				
NSP		Model Label (L)	SAN3730	NSP		└ Accessory Set	SME3684
NSP		Model Label (R)	SAN3731			└ Speaker wire	SDS1190
NSP		Gasket	SEC1984			└ Polyethylene Bag S1	SHL1439
NSP		Gasket	SEC1985	NSP		└ Screws Set	SME3687
NSP		Gasket	SEC1986			└ Screw	BMZ50P100FTB
						└ Polyethylene Bag S0	SHL1438
		Gasket	SEC1987				
		Gasket	SEC1988				
NSP		Gasket	SEC1989	NSP		└ Bracket (L-TOP) Assy	SXG1098
		Gasket	SEC1990			└ Label (L-TOP)	SAK1020
NSP		Gasket	SEC1997			└ Gasket	SEC1995
						└ Gasket	SEC2003
NSP		Gasket	SEC1998	NSP		└ Tape	SEH1079
		Gasket	SEC1999	NSP		└ Bracket (L-TOP)	SNA1455
NSP		Gasket	SEC2000	NSP		└ Cover L-T	SNN1062
NSP		Gasket	SEC2001				
NSP		Gasket	SEC2002				
				NSP		└ Bracket (L-BTM) Assy	SXG1099
NSP		Gasket	SEC2005			└ Label (L-BOTTOM)	SAK1021
NSP		Gasket	SEC2010			└ Gasket	SEC1996
NSP		Felt	SED1126			└ Gasket	SEC2003
NSP		Felt	SED1127	NSP		└ Tape	SEH1079
NSP		Felt	SED1130	NSP		└ Bracket (L-BOTTOM)	SNA1456
				NSP		└ Cover L-B	SNN1063
						└ Spacer	SEP1353
		Tape	SEH1080				
		Tape	SEH1081				
		Input Terminal	SKX1098	NSP		└ Bracket (R-TOP) Assy	SXG1100
NSP		MDF Bar	SLX1163			└ Label (R-TOP)	SAK1022
NSP		Port Tube Ring 26	SMR1393			└ Gasket	SEC1995
						└ Gasket	SEC2003
NSP		Paper Tube 26	SMR1397	NSP		└ Tape	SEH1079
NSP		Acoustic Absorbent	SMT1303	NSP		└ Bracket (R-TOP)	SNA1457
NSP		Acoustic Absorbent	SMT1304	NSP		└ Cover R-T	SNN1064
NSP		Acoustic Absorbent	SMT1305				
NSP		Acoustic Absorbent	SMT1306	NSP		└ Bracket (R-BTM) Assy	SXG1101
						└ Label (R-BOTTOM)	SAK1023
NSP		Acoustic Absorbent	SMT1308			└ Gasket	SEC1996
NSP		Label Serial (Model Label L,R)	SRW1111			└ Gasket	SEC2003
				NSP		└ Tape	SEH1079
		Speaker (Woofer)	H132DC65-51F	NSP		└ Bracket (R-BOTTOM)	SNA1458
		Speaker (Tweeter)	FK26AP32-51L	NSP		└ Cover R-B	SNN1065
						└ Spacer	SEP1353

SCHEMATIC DIAGRAM

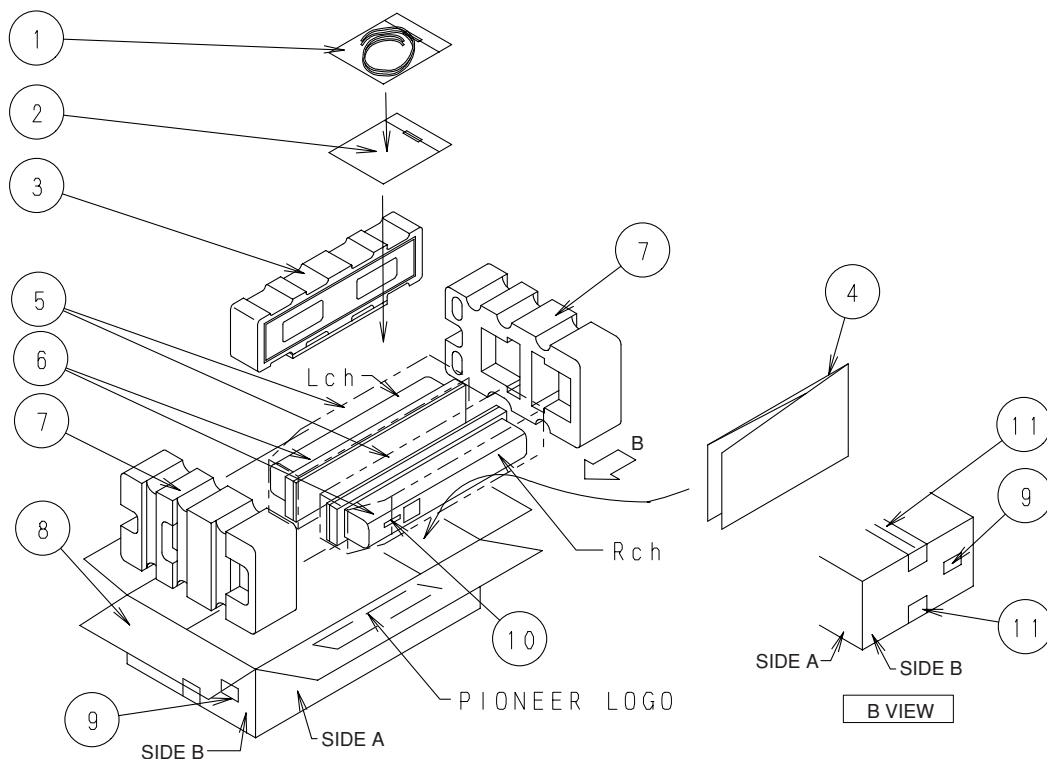
Network Ass'y (SWN1756)



Mark	No.	Description	Part No.
A		Foam Pad (*)	SHA2515
		Protector (*)	SHB1170
		Packing Case	SHG2681
NSP		Packing Bag S2	SHL1444
NSP		Label Serial	SRW1112
		Screw (for Tweeter)	BPZ30P080FTC
		Screw (for Woofer)	BPZ35P080FTC
		Screw (for Terminal)	BPZ35P120FTC
		Screw (for CAB-BAFFLE)	BPZ40P100FTB
		Screw (for NW: L)	BPZ40P350FTC

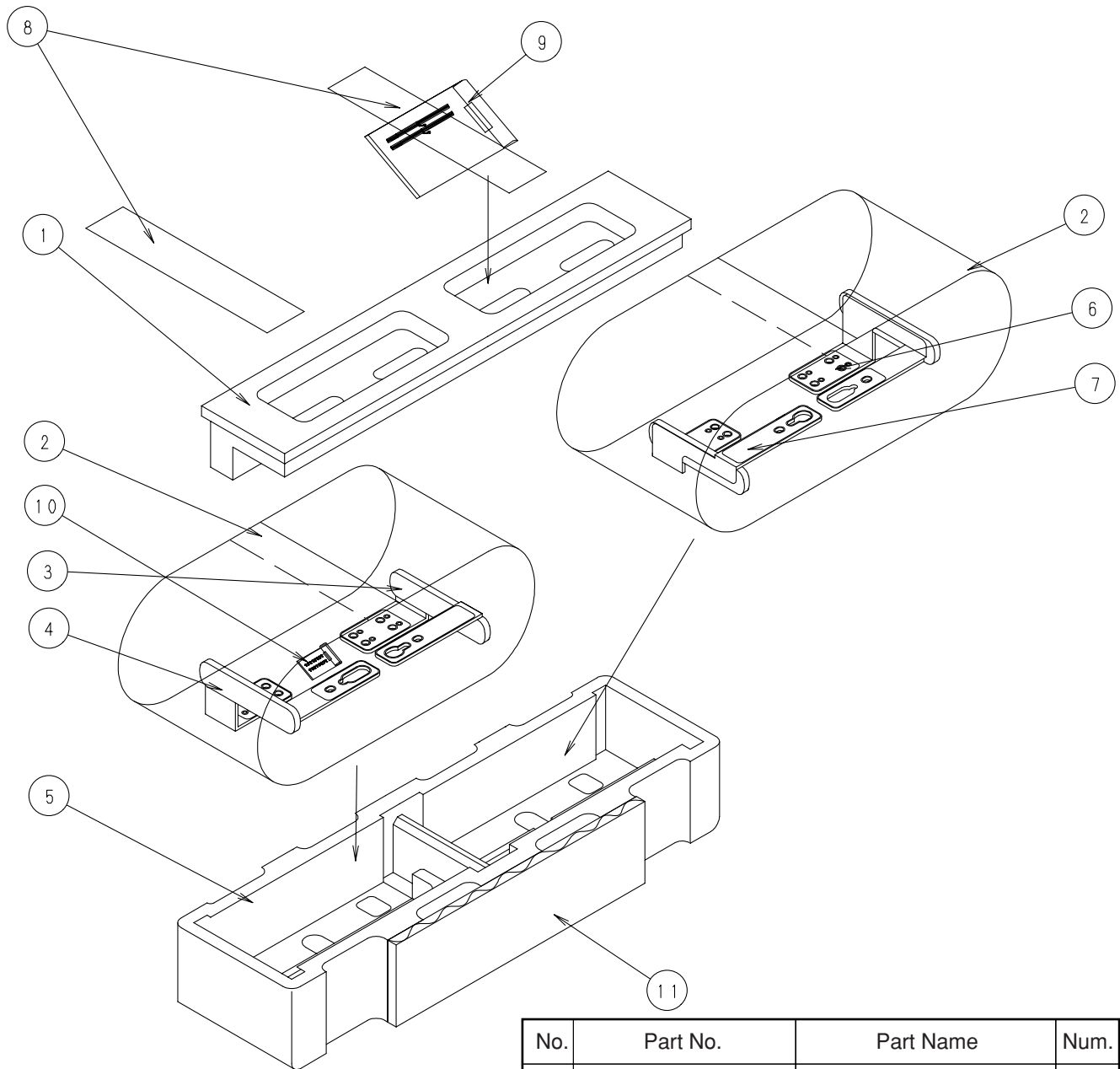
* : Refer to PACKING

PACKING



No.	PART NAME	NUM.	PART NO.
1	GASKET SET	1	SME3685
2	INST.MANUAL SET	1	SME3688
3	BRACKET ASSY SET	1	SME3689
4	PROTECTOR	1	SHB1170
5	PACKING BAG S2	2	SHL1444
6	SPEAKER SYSTEM L,R	1set	
7	FOAM PAD	2	SHA2515
8	PACKING CASE	1	SHG2681
9	SEREAL BARCORD LABEL	2	SRW1112
10	CLEAR TAPE 18mm	8cm	
11	DANPRON-TAPE CLEARNESS 50mm	180cm	

BRACKET ASSY SET
(SME3689)



No.	Part No.	Part Name	Num.
1	SHA2517	CASE	1
2	SHC1832	PROTECTION SHEET S1	2
3	SXG1101	BRACKET (R-BTM) ASSY	1
4	SXG1100	BRACKET (R-TOP) ASSY	1
5	SHA2516	CASE	1
6	SXG1098	BRACKET (L-TOP) ASSY	1
7	SXG1099	BRACKET (L-BTM) ASSY	1
8	ZTA-48MM300Y-48CL	DANPRON TAPE	35cm
9	SME3684	ACCESSORY SET	1
10	SME3687	SCREWS SET	1
11	SHB1173	SPACER	1

1 2 3 4

BRACKET (L-TOP) ASSY (SXG1098)

A

B

C

No.	Part Num.	Part Name	Num.
1	SNA1455	BRACKET (L-TOP)	1
2	SEC1995	GASKET	1
3	SEC2003	GASKET	1
4	SAK1020	LABEL (L-TOP)	1
5	ZBA-8008T-CL	ADHESIVE	1g
6	SNN1062	COVER L-T	1
7	SEH1079	TAPE	1

BRACKET (L-BOTTOM) ASSY (SXG1099)

D

E

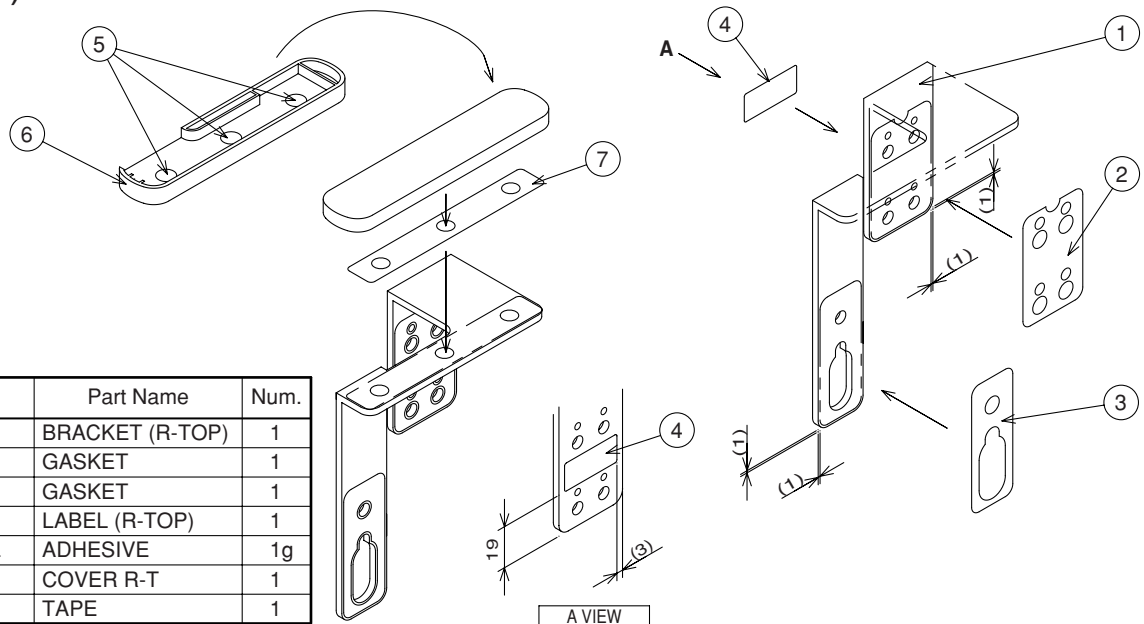
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No.	Part Num.	Part Name	Num.
1	SNA1456	BRACKET (L-BOTTOM)	1
2	SEC2003	GASKET	1
3	SEC1996	GASKET	1
4	SAK1021	LABEL (L-BOTTOM)	1
5	ZBA-8008T-CL	ADHESIVE	1g
6	SNN1063	COVER(L-B)	1
7	SEH1079	TAPE	1
8	SEP1353	SPACER	1

1 2 3 4

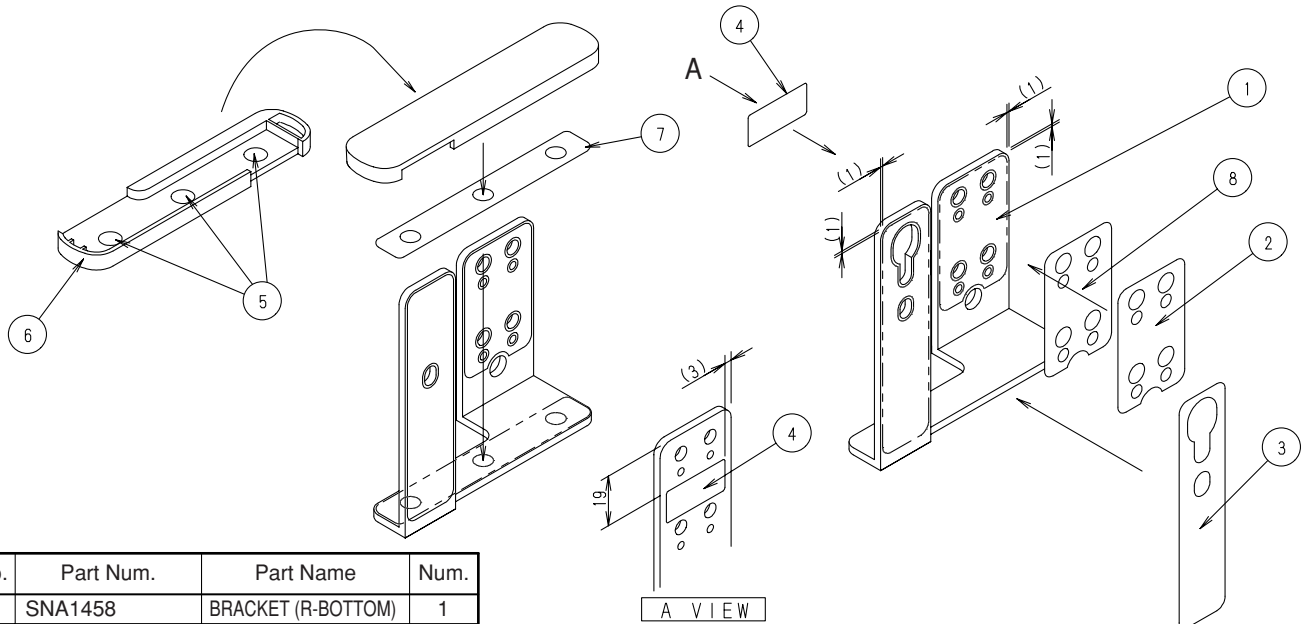
BRACKET (R-TOP) ASSY (SXG1100)

No.	Part Num.	Part Name	Num.
1	SNA1457	BRACKET (R-TOP)	1
2	SEC2003	GASKET	1
3	SEC1995	GASKET	1
4	SAK1022	LABEL (R-TOP)	1
5	ZBA-8008T-CL	ADHESIVE	1g
6	SNN1064	COVER R-T	1
7	SEH1079	TAPE	1



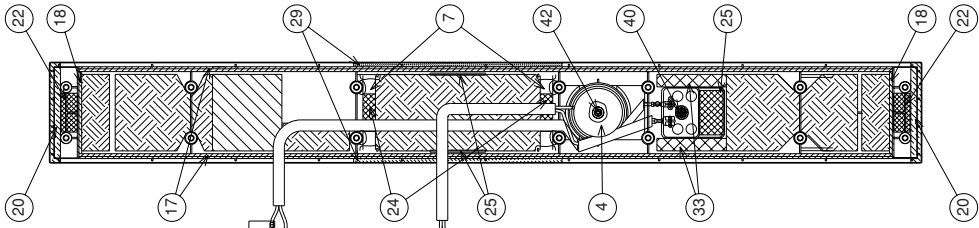
BRACKET (R-BOTTOM) ASSY (SXG1101)

No.	Part Num.	Part Name	Num.
1	SNA1458	BRACKET (R-BOTTOM)	1
2	SEC2003	GASKET	1
3	SEC1996	GASKET	1
4	SAK1023	LABEL (R-BOTTOM)	1
5	ZBA-8008T-CL	ADHESIVE	1g
6	SNN1065	COVER(R-B)	1
7	SEH1079	TAPE	1
8	SEP1353	SPACER	1

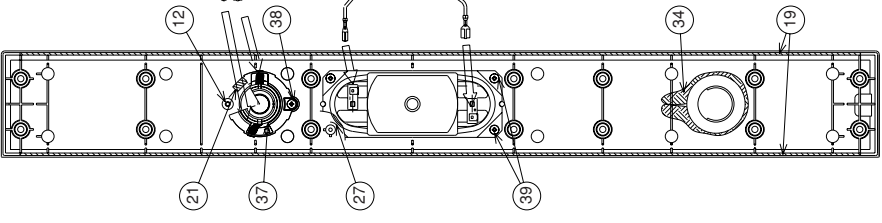


PRODUCT APPEARANCE

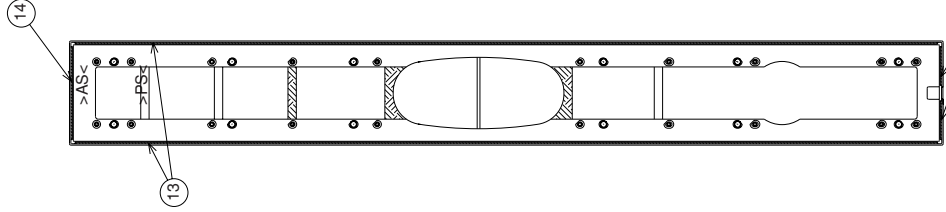
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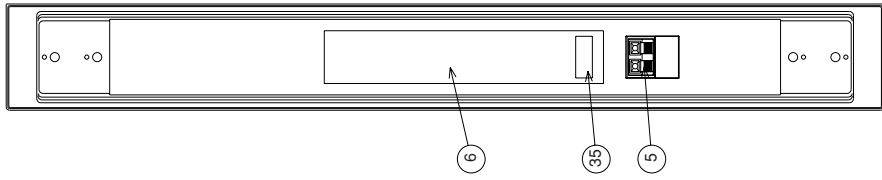
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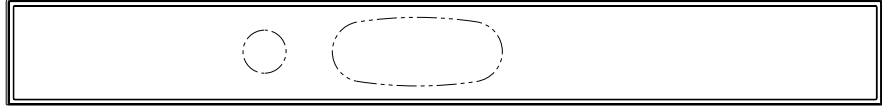
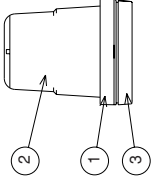
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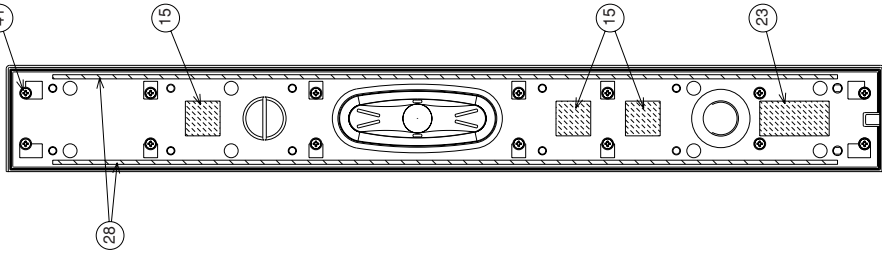
D



E



F



*This product appearance shows Rch. Lch is symmetrical to center line.

No	Part No.	Part Name	Num.	Remarks	No	Part No.	Part Name	Num.	Remarks	No	Part No.	Part Name	Num.	Remarks
1	SNK2920	BAFFLE(R)	1		10	SEC1984				32	SMT1305	ACOUSTIC ABSORBENT	3	CABINET
(1)	SNK2919	BAFFLE(L)	(1)		11	SEC1985				33	SMT1306	ACOUSTIC ABSORBENT	2	CABINET
2	SLXG102	CABINET ASSY	1		12	SEC1986				34	SMT1308	ACOUSTIC ABSORBENT	1	BAFFLE
3	SMG1855	GRILLE ASSY	1		13	SEC1987				35	SRW1111	LABEL SERIAL	1	MODEL LABEL L,R
4	SWNT756	NETWORK ASSY	1		14	SEC1988				36	H32D065-5IF	WOOFER	1	
5	SKX1098	INPUT TERMINAL	1		15	SEC1989				37	FK26AP22-5IL	TWEETER	1	
6	SAN3731	MODEL LABEL(R)	1		16	SEC1990				38	BP23P080FTC	SCREW	2	TWEETER
(6)	(SAN3730)	MODEL LABEL(L)	(1)		17	SEC1997				40	BP23P120FTC	SCREW	1	WOOFER
7	SLX1163	MDF BAR	2		18	SEC1998				41	BP23P120FTC	SCREW	1	INPUT TERMINAL
8	SMR1393	PORT TUBER RING	1		19	SEC1999				42	BP24P100FTB	SCREW	14	BAFFLE-CABINET
9	SMR1397	PORT TUBE	26		20	SEC2000							1	NW COIL